The clinical experienceL an ethnography of medical education.

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THE CLINICAL EXPERIENCE: AN ETHNOGRAPHY OF MEDICAL EDUCATION.

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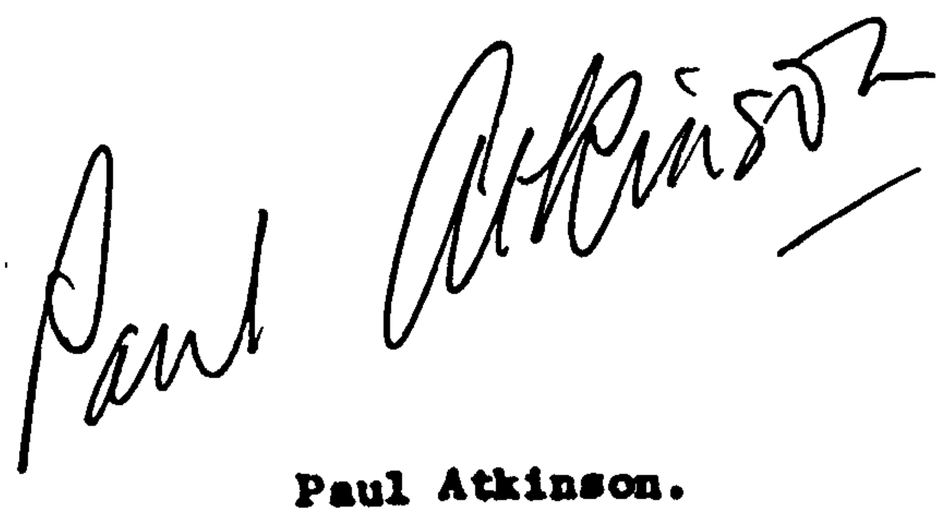
Declaration

I hereby declare that, with the help and supervision referred to in the Acknowledgements, this Thesis reports my own Research.



Paul Atkinson.

Abstract of Thesis

This thesis reports an ethnographic study of undergraduate medical students at Edinburgh University, in their first year of clinical studies. It explores various aspects of their 'clinical experience' in the course of that year. The thesis is organized in four parts.

Part I provides the context for the research. The conduct of the study is reported, and the methods used (participant observation, interviews and self-administered questionnaire) are discussed. The medical school, the undergraduate curriculum and the work of the fourth (first clinical) year are also outlined.

Part II examines two major concepts - 'student culture' and 'professional segmentation'. The variety of medical and educational experiences that students encounter, and the students' understandings of segmentation within the medical school are examined. This part of the thesis also explores how students use their understanding of such diversity in organizing their own careers in the medical school. The argument is also illustrated with case studies of individual clinical attachments.

Part III is focused on the social interaction of clinical teaching - between doctors, students and patients. The management of clinical information in such encounters is discussed. The argument proceeds with a consideration of theconditions for the successful accomplishment of bedside teaching, and of contingencies which can undermine such accomplishment.

Part IV develops the analysis begun in Parts II and III. The management of medical knowledge is analysed further: the 'classic case', 'clinical experience' and clinicians' appeals to indeterminate knowledge are documented. These topics are linked with the theme of Part II, as it is argued that divergencies in personal knowledge are grounded in processes of segmentation in the medical profession and the medical school. Thus the themes of 'professional segmentation' and 'clinical experience' are reunited in the concluding section of the thesis.

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Appendices :

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Portions of the research reported in this thesis have been published elsewhere, and copies of the published accounts are appended to the thesis, in accordance with the regulations of the University of Edinburgh.

Introduction

This thesis reports research on the experience of medical students in the first clinical year of their studies in the University of Edinburgh Medical School. Medical education is by no means a novel field of research. As Bucher (1970) says,

> I frequently have the impression that students of medicine are second only to freshman psychology students in being objects of study by social scientists.

I share Bucher's feeling, but I offer no apology for adding to the research literature myself. My justification is twofold: teaching processes that lie at the heart of medical education (clinical teaching at the bedside) have been almost totally overlooked, and British studies of medical schools have been lacking. The research reported here is an attempt to remedy these deficiencies in our understanding of medical education.

The extent of interest in medical education is attested by the existence of specialist journals for the study of medical education in both Britain and America. In America the Association of American Medical Colleges has sponsored and published a wide range of studies. In Britain, the Association for the Study of Medical Education was founded in 1957, and the British Journal of Medical Education has been published since 1966 (Ellis, 1966).

In this country, interest in medical education has been stimulated in recent years by the publication in 1968 of the Report of the Royal Commission on Medical Education, under the chairmanship of Lord Todd. This not only occasioned a period of change in the organization and content of medical education in general, it also

brought sociologists more closely into contact with medical students and their teachers. In the first major review of medical education since the Goodenough Committee (1944), the Todd Report contained a number of far-reaching recommendations. It was emphasized that Britain needed to recruit and train an increasing number of doctors; this prompted the commissioners to recommend the foundation of new medical schools, as well as an increase in the number of students in existing schools. The Royal Commission also made recommendations as to the organization and content of the undergraduate and postgraduate curricula. In particular, they recommended the introduction of the 'behavioural sciences' - sociology and psychology - into the undergraduate course. This recommendation has been widely (though variably) implemented, and in recent years sociologists have been more and more closely involved in the process of medical education by teaching such courses. The practical, personal and ideological problem of teaching sociology to medical students have now become recurrent topics for sociologists of medicine (cf. Hillbourne, 1974; Reid, 1974; Murdoott, 1974). Yet, so far, sociologists themselves have not contributed a great deal to research on medical education in Britain. The great bulk of what is currently available has been done by staff membbrs of medical schools themselves, and has been couched primarily in the traditions of educational psychology. The central topics of concern have been methods of student selection, the prediction of academic success, the reliability of examination techniques and the specification of 'educational objectives'. The model implicit in such research is a mechanistic one, which treats the educational process as an input-output system, and the medical school itself as a 'black box'. The medical student is regarded as an unreflecting tabula rasa, whose

'empty head is filled with values, behaviours, and viewpoints of the profession, the knowledge being perfect and complete by the time of graduation' (Olesen and Whittake, 1968, p.5). In contrast, sociological approaches, which treat the medical school as an institution, and students as rational actors have been lacking in Britain.

Yet medical students are often used as a bench-mark in the literature on professional socialization, as well as in the sociology of medicine. The place of medical education has been secured in the sociological literature by two classic studies. They are the study of Cornell by Merton and his colleagues (Merton et al., 1957), and the study of Kansas University medical school undertaken by Everett Hughes and his pupils of the 'Chicago School' (Becker et al., 1961). The contrasting pictures of medical education (discussed in detail below) have become reference-points in the growing body of literature on professional socialization. For lack of comparable research in this country, commentators have all too often been content to assimilate British experience to one or other of the American exemplars. But as I shall indicate in this thesis, the American evidence cannot be applied directly to British medical education.

It is beyond the scope of this thesis to present a comprehensive picture of the entire process of undergraduate training at the Edinburgh medical school. With a course spanning up to six years, and up to 150 students in each cohort, such an undertaking would have required a far bigger research enterprise than was possible. What is presented is a partial ethnography of medical education in just one year of the undergraduate course. The thesis is concerned with students' experiences in the fourth year of their course - the first clinical year. Rather than follow the students through the entire course, the thesis therefore

focuses on just a one-year period within it. The period described is a most important segment of the students' undergraduate experience, insofar as it is the first time that the students are taught in the teaching hospitals, and encounter clinicians and their patients. The thesis covers the two clinical subjects to which students are exposed in this period - General Medicine and General Surgery.

It is part of the rationale of 'clinical', 'field' or 'practical' segments of professional training programmes that students should learn by means of some period of immersion in the real world of day-to-day practice. Such periods of 'on-the-job' learning are familiar in training for such occupations as teaching (e.g., Stones and Morris, 1972), social workers (e.g., Youmg, 1967; Deacon and Bartley, 1975) and architects (Males, 1976). The 'practical' components of training may run concurrently with 'theoretical' work throughout the curriculum (e.g., in nursing education, see Olesen and Whittaker, 1968); they may be interpolated, as with architects, or in 'sandwich'ccourses for technologist (Jahoda, 1963; Cotgrove and Box, 1970). Alternatively the segments of the training may be arrange sequentially - with a phase of 'practical' training following 'basic' academic work. This is the model which underlies the most commonly found organization of medical education - which relies on the distinction drawn between the 'preclinical' and the 'clinical' phases of undergraduate training. In medical education, the 'clinical' phase is of profound significance.

As Foucault (1973) points out, modern medicine fixes its own emergence within a period at the end of the eighteenth and the beginning of the nineteenth century. It was at this time that 'the clinic' was born - the distinctive combination of the teaching hospital, a new mode of discourse, new methods of inquiry and so on. The clinic has profound

mythological significance for the medical profession. It provides the rationale for its empiricism, and a profound faith in the primacy of first-hand experience and perception at the patient's bedside:

> Medicine has tended, since the eighteenth century to recount its own history as if the patient's bedside had always been a place of constant, stable experience, in contrast to theories and systems which had been in perpetual change and masked beneath their speculation the purity of clinical evidence.
>
> (Foucault, 1973, p.54).

It was therefore in the clinic that modern medicine devised its prime justification - in the directly perceived reality of the patient and the manifestations of his illness. Under the scrutiny of the doctor (what Foucault calls the 'gaze' le regard) the superstructures of elaborate and abstract theories fell away. What lay revealed to the gaze was the pure and uncontaminated perception of the individual patient and his illness. Or such soon became the mythological charter of modern medicine, at any rate:

> Clinical experience...was soon taken as a simple, unconceptualized confrontation of a gaze and a face, or a glance and a silent body; a sort of contact prior to all discourse, free of all the burdens of language, by which two living individuals are 'trapped' in a common, but non-reciprocal situation.
>
> (Foucault, 1973, p.xiv).

As Foucault describes it, the clinic was born in a radical reorganisation of medical discourse. Whereas previously theorizing had allowed for the classification of disease, ungrounded in the individual or the organs of the body, the clinic was born when it

became permissible to treat the individual as a field of investigation: 'one could at last hold a scientifically structured discourse about an individual'. That space by the patient's bedside therefore became the locus of medical inquiry and research, as well as treatment and instruction.

Jamous and Peloille (1970), have also commented on the emergence of the 'clinic' and its development in the nineteenth century. In common with Foucault they describe the unique combination of roles of teacher, researcher and clinician in the doctor of the university hospital of the time. During the earlier part of the century hospital wards were the main research environment, as well as the locale for the training of apprentices to the art of medicine. What Jamous and Peliolle go on to argue is that in the course of the century, this unique combination came under attack and broke down. With the emergence of research in the laboratory sciences, the clinical practitioner lost his monopoly over medical knowledge and research. The roles of researcher, teacher and clinician began to fragment. The researchers in the medical sciences were usually not those with access to the privileged positions within the university hospitals. Within the medical profession, then, there emerged a struggle for supremacy between the elite clinicians and the clinical and paraclinical researchers. I do not intend to go into a lengthy discussion of Jamous and Peloille here. But one of their main points is noteworthy. They describe how the hospital clinicians sought to retain their social and professional superiority by an appeal to their pretheoretical clinical experience. By this time, however, the nature of this 'experience' had taken on an elaborate set of connotations: In essence, the 'reality' of the bedside had become arcane. Its social and professional exclusiveness had become matched

by what passed for a privileged perception. That is, the 'gaze' of the clinic became associated with a 'vision', which was treated as a personal quality ('virtuality' in Jamous and Peliolle) of the practitioner. The clinicians therefore affirmed their privilege and status by virtue of the place of 'clinical experience' and the primacy of bedside teaching. They made great play of the 'indeterminacy' of core areas of knowledge and perception, and hence the importance of the apprenticeship mode of instruction and recruitment to the profession.

With minor modifications Jamous and Peliolle's account can be generalized to cover the development of modern medicine in many contexts, as can Foucault's. Despite the fragmentation of medical knowledge and teaching, 'the clinic' and bedside teaching have retained their central importance. Throughout the changes in theory and practice of medical education, the clinical has remained, in essence unaltered, at its heart. Its justification remains that which Foucault identified for the earlier epoch - an appeal to direct, pre-theoretical experience, which is taken to be antecedent to scientific theorizing. Thus Foucault quotes a modern French author:

> In order to be able to offer each of our patients a course of treatment perfectly adapted to his illness and to himself, we try to obtain a complete, objective idea of his case; we gather together in a file of his own all the information we have about him. We 'observe' him in the same way that we observe the stars or a laboratory experiment.
>
> (J-Ch. Sournia, cited by Foucault, 1973, p.xv).

Rather more prosaically, two American authors express the justification for clinical instruction:

> The student on the ward learns through actual experience and practice the role and functions of a physician as well as the nature, manifestations, and treatment of disease. He learns something of how illness and hospitalization affect patients and their families.... Above all, he learns how the physician makes observations and how he collects, records and analyzes the information obtained from the patient, the family and the laboratory.
>
> (Engel and Morgan, 1973, p.7).

If the clinic was born in the period described by Foucault, then it is also re-born each day in the medical schools and their teaching hospitals. The everyday teaching practices of clinicians in the hospital wards ensure this daily 'renaissance'. At patients' bedsides and in the operating theatres, the clinic is reproduced and its mode of discourse is transmitted. Clinical medicine and clinical instruction thus recapitulate their own development and their own mythological past.

It was, and is, in the clinic that medicine finds its warrant in the privileged perception of the patient and his illness. Whatever the changing fashions of theory and treatment, there thus remains for medicine the pre-theoretical, pure experience of the clinic. Clinical work and bedside teaching provide the milieu in which the components of medical training are fused. They provide the combination of 'theory' and 'practice', of 'science' and 'practical experience' which are together taken to be necessary for the production of a competent practitioner.

Despite its centrality to medical education and its mythic

significance for the medical profession, the topic of clinical instruction/bedside teaching has remained almost entirely neglected as a topic of research. This applies equally to inquiry from 'the inside' - by members of the medical schools themselves - and to inquiry 'from without', including that by sociologists. In a recent review of past and present trends in research in medical education, the following was noted as one major lacuna: 'the microdynamics of student-faculty-patient interaction in the medical school' (Levine et al., 1974). Since that paper was published, nothing has emerged to remedy that: the area remains under-researched by educationalists and sociologists.

For members of the medical profession and sociologists alike, the nature of 'the clinical' in medical education has escaped close scrutiny. Whilst its importance has been affirmed, its nature has remained unexamined. To some extent this can be understood as a reflection of the dominant styles and approaches to sociological research - especially in the field of education. It has only been with the emergence of the so-called 'new sociology of education' that the management of knowledge in educational settings has been a normal topic for inquiry.

I strongly suspect, however, that there is a more significant reason for the particular neglect of bedside teaching in the major hospital specialties. It lies in the nature of the enterprise itself, and the nature of its taken-for-granted legitimacy. I refer to the fact that it apparently depends on the students' direct, personal exposure to the 'reality' of medical practice. Students' firsthand experience of life and work in the hospital wards, operating theatres

and so on, may appear to need little further elaboration, justification or investigation. It may appear to be self-evident and natural that students should learn by being immersed in the 'real' work of competent practitioners in their 'real-life' work settings. Just as bedside work provides a historical justification for the medical enterprise, so it has a self-justificatory air in its day-to-day practice. This world of 'reality' is therefore taken to provide experience that the practitioner can rely on: he relies on the evidence of his own senses, and so amasses a personal stock of relevant knowlege.

The outcome of this is well expressed by Crooks (1975), when he says, of bedside clinical instruction, that 'this is an area which has tended to be "taboo" in curricula development'. Crooks was certainly correct in identifying the questioning of clinical teaching as 'taboo'. The word is well chosen: it has connotations of the sacred - of 'mysteries' which only the initiated may glimpse or participate in. Clinical medical instruction has such an aura of mystique surrounding it. The 'lesson of the hospitals' is recapitulated every day. Yet it remains stubbornly invisible.

PART I : The Research and Its Setting

'Every approach needs to presume upon its reception. And, so, in beginning we never fear that we shall be wholly misunderstood; we trust that our hesitancy, our stumbling talk, and our choice of words are not a search in the dark. To begin is confidently part of the work of building and sharing an understanding. It is ideally the institution of making sense together within a common life and a common world'.

(John O'Neill, Making Sense Together, 1975, p.1)

1.1 : The Conduct of the Research

Introduction

The methods of the social sciences all imply some degree of social relationship with the subjects of the research, and this is of crucial relevance when the method consists of some form of 'ethnographic' approach, as is the case with the research reported in this thesis. The researcher and the researched share, temporarily, the same social world. The conduct of the research is achieved through the relationships and negotiations sustained by the researcher and the actors involved. The precise nature of the methods used and the issues which emerge as problematic for the researcher are emergent properties of the shared social world evolved by the ethnographer and the subjects of his or her research. In this section I therefore document the conduct of the research itself - the varieties of fieldwork, and additional research techniques that were employed.

Finding a Way In

At the outset of my research it was quite clear that it would be impractical to try to cover the entire range of the medical school; the resources and time at my disposal preclude such an approach. It was therefore necessary for me to scan the medical school in order to decide upon some point of entry into the organization and some vantage point from which to observe the students and their training. Several possibilities presented themselves initially. The first year of the curriculum is devoted primarily to basic sciences (Chemistry, Physics and Biology) and the medical content of the syllabus appeared to be limited. The second year seemed to afford greater possibilities; in

this year the more distinctively 'medical' subjects are first encountered by the students - Anatomy, Biochemistry and Physiology. This period of the curriculum did appear to offer research possibilities, and I therefore spent some time, in a very preliminary, and rather haphazard way, joining the students in Anatomy and Physiology. Of particular interest to me at this time was my access to the Anatomy dissecting rooms, where I chatted to some of the students as they worked on their cadavers. The intrinsic and personal interest of this experience was considerable. Just as the experience of the dissecting room is often taken to be a necessary baptism for the new medical student; 'it is often taken for granted that getting used to dissecting is a major problem for freshmen, that first contact with dead bodies must be a difficult, if not traumatic, experience' (Becker et al., 1961, p.102). As these authors note, it is a theme which frequently appears in fictionalised accounts of medical student life (cf. Gordon, 1951). Rosenberg (1969) described 'meeting the cadaver' as an occasion of stress among freshman medical students (see Simpson, 1972, p.66). The students I talked to in the dissecting rooms and on later occasions recounted their own misgivings and unease on first encountering their own cadaver - often with a sort of 'black humour' recounted at their own expense. There were one or two stories of students (female) being unable to go through with dissection and withdrawing from the faculty. For most of them, for most of the time, however, the experience seemed to assimilate in a matter-of-fact manner (cf. Becker et al., 1961, p.103). Nevertheless I too took it as a personal initiation into the world of medicine. I had the half-articulated notion that if the medical students had to go through the symbolic 'rite de passage' (van Gennep, 1960) of the dissecting room, then I too should share this most salient of their experiences.

Although in the event this brief period in Anatomy does not form part of the research reported in this thesis, it did on occasion stand me in good stead with the students - in establishing my bona fides, and my credentials with them.

Despite the interest of these preliminary observations, I felt that I ought to focus my main research further on in the students' training. The students in Anatomy and Physiology were looking forward to their first contact with the work of clinical medicine, in the fourth year of the course. They saw the move from preclinical to clinical studies as a major landmark in their lives. The students' initial exposure to clinical work therefore suggested itself as a likely point for the examination of the development of students' views on the nature of medical work, and their perceptions of the various clinical specialities.

My final decision, therefore, was to undertake a study of the fourth-year - the first clinical year - by means of personal contact with the students, making participant observation my main research approach.

Getting Started

Having decided that I wanted to concentrate on the first year of students' clinical studies - the fourth year - and having committed myself to the aim of doing the research by means of participant observation and interviewing, I was then faced with the problem of negotiating access to the hospital wards. As it transpired, there was nothing inherently difficult in this, but it did prove a very lengthy process. My negotiations really began with the Professor of Medical Education, who was also the Executive Dean of the Medical Faculty. Had

it not been for his interest and support I have no doubt that my research - at least in the form it took - would not have got off the ground. It was he who sponsored my application for permission to spend time with the students on the hospital wards. There was some problem insofar as the methodology of participant observation was rather alien to the scientific outlook of the members of the Medical School staff. Research on medical students and their education is by no means unusual, and much of the British research has been done in Edinburgh. But the research paradigms employed tend to rely heavily on the administration of attitude surveys, or personality inventories. The emphasis is very strongly on the quantitative approach to such research; my approach did not square with the normal expectations of worthwhile research, and seemed 'wooly' and 'subjective'. (Needless to say, this view is not confined to members of medical schools!)

However, in the event, a formula was found which did appear to satisfy the sensibilities of the Faculty members. The minutes of the Faculty meeting which approved my research proposal gave me permission to associate unobtrusively with groups of students, on the understanding that this would in some sense be a preliminary strategy until I formulated more detailed research proposals. In the event, once this general approval had been granted, it became apparent that such further details were not required, until, at the end of the first year of the research I distributed a questionnaire to the students; the draft questionnaire was submitted in advance to the Executive Dean. This was the extent of the further involvement of the Medical Faculty in the conduct of the research. It was made a condition of my research that I could mingle with the larger clinique groups, and that therefore association with students in their final year, who are attached to clinical units individually or in small numbers was ruled out. Obviously such a condition did nothing to hamper

my work with the fourth-year students.

The permission granted by the Faculty also made it clear that my actual participation in medical work was dependent upon the permission of the relevant Head of Department, and of the doctors on the individual clinical units. Thus even though the initial hurdle had been cleared, I was still faced with a number of further negotiations before I could actually join the students on the wards. The Faculty of Medicine office sent out a duplicated letter from the Executive Dean, introducing me and reproducing the Faculty minute that gave me permission to go ahead. (The letter is reproduced in Appendix .) For my second year's work, in surgery, this letter was suitably modified and sent to the staff members of the surgical units.

For my first unit in medicine, I had already made contact with some of the staff members, via introductions from another member of the medical school staff. Thereafter, in order to gain access to further units I simply asked the senior consultant of each 'firm' for his permission to join his students. Although I was from time to time warned that individual consultants might prove 'difficult' and be unwilling to let me come and spend time in their wards, I was in fact refused access by only one of the consultants I approached. Since there were far more clinical units than I could cover anyway (seventeen in all), this one refusal did not in any way hamper or hold up the research as a whole. The beginning of the research was not without its crises. I learned that a number of consultants were somewhat concerned about my presence in the teaching hospitals and there was talk of bringing the matter before the Board of one of the hospitals: the General Medical Council was also mentioned darkly. Luckily, however, senior members of the staff were able to allay their most pressing misgivings. I

suspended my observations for a few days while the problem was dealt with, but was soon able to resume them. After this initial threat, and the enforced hiatus in my research, I encountered no further problems or interference in carrying out my observations.

For the most part, the chiefs of the various firms did not lay down any strong conditions on my research, and none of them subjected me to the sort of searching 'grilling' that I had rather expected. Most of them claimed that they 'vaguely remembered' the letter that had been circulated from the Faculty office. In making my requests for access I found it remarkably difficult to explain to the doctors what it was that I was planning to do on their wards. However, I found that they themselves readily translated my stumbling outline into the general formulation of 'communication' - between doctors and students, and between students and patients. I believed that this formulation of theirs adequately covered what I wanted to observe, and that in agreeing to it as a description of my research interests I was not guilty of any serious misrepresentation. This interpretation of my research project was also voiced as I did the research. For instance, during my work in medicine I noted:

> Dr. McDonald then came into the teaching room. Before he began to teach he turned to me, and explained that the students would shortly be looking at case-history notes, and as yet did not know about the normal ranges and values for haematological reports. He was therefore going to take a tutorial on the interpretation of haematology lab. reports. He went on to say to me that there would be 'no fancy patient-contact stuff - it's all meaty stuff'.

It was also a recurrent perception on the part of clinicians that I was involved in some directly evaluative exercise. It was a common reaction to take it that I was involved in action-research which was

directly and immediately oriented to the formulation of improved teaching practices on the clinicians' part. For example, one senior registrar in medicine confided in me that he welcomed my presence and the research I was doing. He had, he explained, been in the army and he was worried, as he felt that he could teach the assembly and maintenance of a bren-gun much better than he could teach on a patient. He was worried over his own teaching, and the nature of clinical instruction in general. I tried to disabuse him of the notion that I was sufficiently expert in educational theory and methods to offer any immediate advice in this area. But other doctors would occasionally defer to me as an 'educational expert' - for instance when propounding some pet educational theory of their own to the students they would stop and seek my approval for their ideas. On such occasions I was forced to equivocate; in the context of a teaching occasion I was not able to go into any lengthy discussions of my research, its methods and its implications.

Students would likewise formulate their own interpretations of what my research might be about. The most usual solution lay in the assumption that mine was an evaluative research project. They took it that I was evaluating either clinical teaching in general, the approach of individual teachers, or both. They therefore expected me to be able to make comments on the 'efficiency' of bedside teaching as an educational method, or the nature of small-group dynamics at the bedside and in the tutorial room. Although I would try to explain that I was not directly involved in evaluation, I was never able to convince some of the students fully that this was the case. They tended to assume that I was interested in their experiences on their clinical attachments (as indeed I was) as evidence of their educational merit; the information that students volunteered on this score served the purpose of my developing research

concerns, however, despite being based on false premises.

However, both students and clinical staff were almost unfailingly satisfied to leave me to my own devices - to ignore my presence when they were busy with other things, and to talk with me when they had time and when we had things to talk about.

Day to Day Negotiations

Although I found that it was relatively straightforward to be granted permission to attend clinical teaching periods, this did not mean that my day-today presence on the wards was unproblematic. Quite apart from the senior consultants concerned, I also had to negotiate with the various teachers who were engaged in the bedside instruction. This was not straightforward. In the first place, I found that although chiefs of firms would assure me that they would inform their colleagues of my imminent arrival on their wards, this was not always done, and I would find that after my first interview with the chief, I might go out of his head almost immediately. Even when the doctors had been forewarned, the news did not always filter through to all the members of the staff - and the more junior doctors might well have been left uninformed. Consequently, I would find that I was going in 'cold', with little or no prior warning for the doctors concerned. Very often the arrangements for my introduction had to be ad hoc, when I arrived on the wards. On my first morning on one of my medical attachments, I noted:

> When I first went to wards __ and __, I was not at all sure what sort of reception had been laid on for me, although I had already negotiated general access with the chief of the service. When I arrived, I found that the students were about to spend the first hour of the morning in individual ward work. As I was not entirely sure of my welcome, I stopped a passing doctor (whom I did not recognise) and

asked him who was in charge of the students' work that morning. He told me to go and see Dr. Foster, who was upstairs. I went upstairs to the other ward; I found the ward sister and asked for the Doctor. She went away, came back and asked me to wait. I had to wait quite some time.

It appeared that Dr. Foster himself was busy with his clinical work, and as I waited in the corridor I could see him bustling in and out of one of the small single rooms just inside the ward doors.

After some ten or fifteen minutes, Dr. Foster came out to speak to me.... He seems quite affable, and told me that I could join the students for their ward work now if I wanted to. In fact I decided that it would be tactless to butt in in the middle of the students' history-taking. (I had had to wait until after 10.30 to see Dr. Foster). So I hung about in the doctor's room.

In the room I was quickly confronted with the necessity of entering into a new introduction and negotiation.

After I had been there some minutes, one of the consultants .... came in with two housemen. Whilst I hovered in the corner, Dr. Robinson (I could read his name from his lapel badge) and his junior staff entered into a discussion at the other end of the room. Dr. Robinson was going through a pile of case-notes and he appeared to be discussing patients with a view to teaching on them. I could not hear all that was being said, but I could hear Dr. Robinson talking about patients as suitable 'teaching material', and at one point seemed to be discounting one patient for teaching purposes, as the clinical findings were not clear enough.

When Dr. Robinson had finished, he turned, looked shrewdly in my direction and confronted me. "Do I recognise you?" he asked. I told him my name and indicated briefly why I was there. I gathered from his reception of me that he had heard of me, and he seemed quite satisfied. He seemed at this first meeting to be a very pleasant and agreeable doctor.

On this occasion, I was able to start 'observing' and to start my ongoing negotiations more or less at the same time. Although I had made detailed arrangements of when I was going to start work on the unit with the chief, even the consultant I first met appeared to have only the most vague impression that I was expected on the wards. I had a similar sort of reception on my first surgical attachment. The very first session on my first Monday morning had been taught by the chief of the firm himself. But, as I recorded it subsequently, his memory for my identity was remarkably short.

> When the students all went off for coffee - at about 11.15, I stayed behind, hoping to find whoever was going to teach the next session and introduce myself to him. I therefore hung about, and stopped the chief as he emerged from the doctors' room. I asked if he knew who was taking the next session, so that I could introduce myself. 'Yes', he replied, 'Who are you?' (!!)
>
> 'Paul Atkinson'.
>
> 'Of course'. He put his arm round my shoulders and led me into the doctors' room, where a number of the surgeons were having their morning coffee. He introduced me very briefly, 'This is Mr. Atkinson, who is doing a survey of surgical teaching'. Then he left me.
>
> . . . .
>
> I asked one of the consultants if he knew who would be teaching the next period with the fourth year students, and he told me that it would be Mr. Jenkins. I misinterpreted a non-verbal cue from the consultant and thought that one of the other surgeons present was the said Mr. Jenkins. Discovering my mistake (and feeling even less at ease) I then asked if Mr. Jenkins was around. Mr. Mackay said he was 'down in S.C.D.', and that they themselves would be going down there shortly. When he had finished his coffee, he took me downstairs, to what turned out to be the Surgical Consultation Department (i.e., an out-patient department). He went into one of the little consultation rooms and brought out Mr. Jenkins, whom he introduced to me, and who readily agreed to my joining his teaching session.

It was often extremely difficult to find the doctors in order to introduce myself to them before they came to teach the students. Sometimes I would have short notice - or no notice at all - of who was due to do the teaching; this was a particular problem of my first days in a new clinical unit, when I and the students might be unsure of the routine, and of who the various personalities involved were. When I did find out who was due to teach, I would also find that when I tried to contact them beforehand, they would be working at a different hospital for the day, or were in theatre, or in clinics, or were otherwise unobtainable. It was not unknown for me to make my first contact with a doctor by arranging to see him between appointments in an out-patient clinic. Further, it was not always possible to predict precisely which doctors were going to turn up to teach the students. Although some units had a regular timetable of teaching arrangements, these arrangements were always treated as flexible. Given the relationship between the demands of teaching, research and patient care, the doctors could find themselves diverted from their weekly teaching commitments from time to time, and for alternative arrangements to be made for the students. It could always happen that, without prior notice, the clinique would be sent off to another specialist unit for teaching by a doctor who was not a member of staff of the 'home' firm. In the same way, different doctors could arrive unexpectedly in the wards to teach the students there. For these reasons I would find myself making 'on the spot' self-introductions, and asking the doctor's permission to stay with my group of students through his teaching period. Luckily, despite the impromptu nature of my appearances, such hasty negotiations were always successful, and caused no trouble with any of the clinicians concerned. No doubt the fact that I was already clearly 'at home', and the fact that I could always claim the authority of the chief of the firm to vouch for my presence smoothed these potentially difficult situations.

Unobtrusiveness and Social Relations in the Field

Although my presence on the wards had originally taken a fair amount of negotiation, once access had been granted, I was generally taken very much for granted by the doctors on the wards, and by the students as they went about the hospital. I was basically left to get on with what I wanted. Indeed, for some doctors I became so much a part of the normal scene that they forgot who I was: I was on several occasions taken for a student. For example:

> We went to the ward, to find Dr. Morrison waiting by the entrance to the ward. He told us to hurry up, and there was a sort of benign asperity and gruffness about his voice, There were still some of the clinque members away at coffee, and we stood about waiting for them. Somebody again mentioned the graduation ceremony that had just taken place, and the degree of B.Sc., Med. Sci. Dr. Morrison then asked the students I was with if any of them had taken the degree. They were mostly secon-year entrants and so had not done so. Dr. Morrison then turned to me and said, "Are you a B.Sc. Medical Sciences"? "No, B.A. Cantab", I replied. "Oh! We should call you Sir. What made you choose Edinburgh as your medical school"?
>
> I briefly reminded Dr. Morrison of who I was - pointing out that I had already been to see him to explain about my research and to introduce myself. I told him that I had assumed that he had recognised me again, and that I wasn't trying to fool him in any way, or to join the group furtively. Dr. Morrison then appeared to remember who I was, and took no further notice of me ....

This interaction with Dr. Morrison was not the only one in which my presence with the students - which I thought had been registered and taken as read by the doctor - was suddenly questioned in this way. One such incident occurred with a physician who I had already met on more

than one occasion. He was teaching the students round the bed of a very old lady, who was unconscious. The patient was in one of the small single rooms which opened off the entrance to the main open ward. As there was not a lot of room in there I tried to keep out of the way of the students. There was in any case little to see, and there seemed no point in my crowding in. The patient was lying on her side, with her face turned towards the wall. At one point in the proceedings the clinician wanted the students to get really close to the head of the bed and observe the patient's eyes. As they all crowded into that corner, I hung back at the foot of the bed - as I thought, being considerate. After a moment or two the physician noticed me there, broke off what he was saying to the students and said to me, "You won't see very much from down there". Although his tone was rather sharp, I still assumed that he realised who I was. I replied, "Oh, it's all right, thanks, I can see all I need to ..." The doctor than made it clear that he had misunderstood the situation, and had taken me for a student, and that my reply sounded very inappropriate. I hastily reminded him that I was there to observe the bedside teaching, and of who I was. "Oh", he said, "You're not tape-recording all this, are you"? When I told him that I was not, he seemed perfectly happy, and paid no further attention to me throughout the rest of the teaching session.

As I have pointed out, although it was a regular part of my negotiations for access that patients should be made aware of my presence and the reason for my being there, such information was in fact never vouchsafed to the patients. But from time to time I became aware that the patients were noting my presence, and were looking at me rather quizzically: I neither taught, nor did I ask or answer any questions. Sometimes I did feel that I must have stuck out from the rest of the

group to some extent. However, there was only one occasion when my presence was openly queried by a patient. It happened on a medical unit, when my fieldwork was quite well advanced, in the third term of the first year. I was with one of the consultants and three of the students. The group were all seated round a patient's bed, and I sat behind the students, towards the foot of the bed. I was visible to the patient, but not in direct line of vision as she spoke to the rest of the clinique. My position was, I felt, sufficiently unobtrusive, and I took some notes as the students took turns in questioning the patient. The patient herself was a middle-aged woman, bright yellow with jaundice. As the students' questioning progressed, it became apparent that the woman drank heavily - and indeed that she was probably an alcoholic. Throughout the teaching session the woman's attitude towards the consultant, and to the whole exercise, was one of detached boredom - of belle indifference. She appeared to lack any interest in her own condition. At the same time, she did appear to feel free to pass comment on the proceedings, and to take the initiative in starting new lines of conversation (often quite alarmingly tangential to the doctor's and students' lines of inquiry).

e.g. The patient interrupted again: "One thing is different. I know I'm not asking the questions, but last time I had my own cutlery and crockery - which I haven't had this time - which my doctor said I should have - as it might be - what's the word?...'

Later, as the consultant and the students moved on to a discussion of possible causes and signs of obstructive jaundice. Whilst they were talking amongst themselves, the patient broke in:

> 'What about the little man at the back - I can't see his face!' I shifted slightly so that she could see me a bit and gave her a little smile. Dr. Maxwell and the students discussed possible clinical signs among themselves. The patient seemed quite uninterested, and was whistling quietly to herself.

> I took care to let her see me from time to time, making sure that I did not catch her eye too much, and so spark off new tangents in her comments.

This particular patient was rather unusual. At one point, Dr. Maxwell interrupted the history-taking and took the students aside to comment on how odd she was being. Her indifference and ironic detachment marked her off from the normal run of the patients I saw. When the teaching session was over, the consultant commented to me, "She was an odd bird. She picked you up!"

Of course, it is noticeable that even this patient, who asked directly who I was, hardly received a full explanation for my presence.

At times, 'unobtrusiveness' could prove rather difficult; as I have already said, at times I could be taken for a student, and 'put on the spot' by a doctor who mistook me for one. This became particularly noticeable in surgery, when I went into the theatre with the students. If we were in an open theatre, rather than behind a glass screen, we all had to put on gowns, caps and masks. With only our eyes showing it became difficult to recognise who was who - only a student's sex was apparent (and that was not always totally obvious under the voluminous theatre gowns). Under such conditions I became especially vulnerable to problems of 'mistaken identity' - I was acutely aware that I might be picked on suddenly to answer a question thrown out by the surgeon at the table.

e.g. When he had removed the second part of the goitre, Mr. MacDonald said to the gallery, "Perhaps one of you would like to go up to frozen section with it..." as he handed the bowl with it in to the theatre porter. Mr. MacDonald looked up, and suggested that one of the two students on the end of the rows would be easiest. Since I was sitting at the end of the row, I was one of the two. I was by no means sure

that in looking up Mr. MacDonald knew who I was, and I was very unwilling to go through any further negotiation and explanations - either with the pathologists, or in the presence of the theatre staff. I therefore nodded to the other student and indicated with my head that he should be the one to go out, whilst the group of students looked round at each other, in some indecision. Luckily the other student went off to take the specimen away. I am not sure whether he recognised me either. This is obviously one of the perils of wearing surgical masks!

Field Roles.

It is customary to describe the performance of ethnographic research in terms of a role that is adopted by the researcher in the field (cf. Schatzman and Strauss, 1973).

However, it is not possible to designate my position in the field in terms of any single, stable role. This can be illustrated by reviewing briefly the ideal-typical role descriptions that have been devised by methodologists in an attempt to capture the degree of participation and involvement with the action in the settings observed. A classic exposition of this is that of Gold (1958), who identifies four such roles: 'complete participant'; 'participant-as-observer'; 'observer-as-participant'; 'complete observer'. The so-called 'complete participant' is typified as operating under conditions of role pretense: his true identity and the purpose of his research are not disclosed to the actors whom he observes. An example of this research strategy is that adopted by Lofland and Lejeune (1960) in their study of Alcoholics Anonymous. Complete participation may also characterise research which is based on unpremediated participation or enforced presence in certain situations, where research is not the reason for the sociologist's presence; examples of the retrospective reporting of such participation

are Davis's period as a cab-driver (Davis, 1959), or Roth's enforced period of observation in a T.B. sanatorium (Roth, 1963). The deliberate deceptions which are an inescapable aspect of the first of these approaches raise serious ethical problems, and these will be taken up in my later discussion of the ethics of my own research.

The 'complete observer' role is rarely encountered in 'naturalistic' research - at least in a pure form or as a dominant technique in any given research enterprise. In adopting this strategy the fieldworker is entirely removed from interaction with those he observes. Such an approach can be used most easily and efficiently for the observation of behaviour in public places, in relatively anonymous social settings. Insofar as it is not anchored in a detailed knowledge of the settings and the participants, it can be used to cover a wide range of situations (cf. Yancy and Rainwater, 1970). However, for any research in more 'private' domains, where access is not automatically granted to all and sundry, it is not normally available to the researcher. The exigencies of negotiating access and sustaining relations in the field will normally necessitate that the researcher adopt a less detached role in the field. As Schatzman and Strauss (1973) comment:

> ....observing without being observed is virtually impossible to manage in natural social settings. The need to sit in on relatively private discussions, and to ask questions, precludes this tactic as a reasonable option.
>
> (p.59)

Some researchers, mistakenly, embrace a view of their work which, implicitly, portrays the observer as completely detached in the course of data collection. Such a view is perceptible in a number of studies on teaching processes which follow the paradigm of American experimental

social psychology (e.g., the many methods of so-called 'systematic' observation in school classrooms - cf. Hamilton and Delamont, 1974). Yet in such contexts the observer is always observed. Even though he or she may remain 'unobtrusively' at the back of the classroom or on the fringes of the group, he or she is, nevertheless, 'in play' and must attend his or her department and place in the social settings. The 'unobtrusiveness' is itself a social accomplishment, and to that extent at least the observer's research act is a participatory one. As Gussow comments:

> In studies of this kind (observations of school children) it is fallacious to think of the observer as standing outside and apart from the persons and events he observes. From the moment he begins his work, he becomes part of the context, whether he wants this to happen or not.... Together, observed and observers are involved in an interactional nexus.

Schatzman and Strauss (1973) also emphasize the extent to which 'unobtrusive department' is something that must be worked at by the researcher, and made situationally appropriate:

> The researcher may sit in the corner of a room and not enter into conversation. The flow of events is not appreciably influenced by his activity.... But this option poses some dangers; the spectre of a relatively impassive observer whether or not taking notes, barely showing appropriate effect or active curiosity, and offering few if any cues as to what he is 'really up to', can be very disturbing to the hosts. This option cannot be carried out indefinitely and universally for all situations.
>
> (p.59)

'Complete' observation, with no interaction, is therefore practically inefficient in many settings. In others it is a fallacy to believe that it is even possible. In the context of my own research, complete observation vis-a-vis all the participants on the hospital wards was a total impossibility; however, as I have just discussed, the degree of participation which marked my research varied from one category of observed actors to another, and from one social setting to another.

The varieties of 'observer-as-participant' and 'participant-as-observer' are more frequently approximated in the performance of field research. In both cases, the observed are aware of the nature of the researcher's identity and purpose. The distinction that Gold draws between the two varieties depends upon the emphasis placed on close interaction and participation with the research subjects. The observer-as-participant remains a relative 'stranger' to the group members, and is something of an outsider: the participant-as-observer becomes more closely involved in the conduct of their daily lives and their interactions.

Both of the 'extreme' or 'pure' types of field strategy described have their drawbacks - and they are very similar. In neither case does the researcher have much leeway in managing his interpersonal relations. The ability to question actors about their activities may be curtailed in both contexts, and approaches based on interviewing will often be ruled out, lest one's inquisitiveness lead to suspicion, or one's cover is 'blown'. The 'complete participant' may find his physical and social access in the field setting is limited by the nature of the role that he has assumed. For instance, if, in the conduct of medical research, the ethnographer should adopt the role of a hospital porter, or similar

auxiliary worker, then his ability to go where he wants, and to speak to whom he wants will be limited by the customary rights and duties attendant upon his chosen role. The 'complete observer' by definition denies himself many possibilities: he will not normally be able to gain access to 'backstage' areas, inner sanctums and so on, without disclosing his identity and interacting with the parties concerned. The 'intermediate' types of strategy normally allow the researcher to be a great deal more flexible in his approach; he will normally be able to range over a variety of situations, and be more free to follow up events by questioning in the field, or by means of interviews afterwards.

While such role definitions provide a handy way of conceptualising social relationships in the field, they do not capture the range of negotiations and roles that the researcher may have to perform. Descriptions like those of Gold tend to present a picture of an undifferentiated social milieu: that is, that there is a single, more or less homogeneous set of others with whom he interacts. Yet in complex organisations such as a hospital or medical school, this is not so. There are many categories of members - differentiated by their occupational specialisation, their place of work or sphere of influence, and their grade within occupational hierarchies. It is not necessarily the case that research will be directed towards all these organisation members equally. In my own case, I was primarily oriented towards the medical students, and my contacts with other medical school and hospital personnel were contingent upon that main focus. Consequently the extent to which I was a disengaged observer, or a participant in the action depended to a considerable extent on the nature of the particular group I was with, and the nature of the occasion. I was always an observer

of the nursing staff and auxiliary personnel: I was a much more involved participant with some groups of students, whilst with others I remained a much more marginal figure.

The give-and-take of negotiations in the field mean that it may be expedient - and may come quite naturally- for the observer to become an engaged participant for brief periods. As a researcher it is always easy to find oneself rather aloof from others, and to be in a position always to be taking from one's informants and never giving. A lack of reciprocity can occasionally create strain and difficulty in one's field relations and these feelings may be rectified by the occasional participation in activities, and in contributing to them. Such occasional participation has been described as 'the-engaged-observer-as-transitory-participant' (cf. Olesen, n.d.). Participation of this sort arises when the researcher can 'help out' in various ways. For instance, during my early days in the field I was with a class of students who were first learning to use an ophthalmoscope. They paired off and took it in turns to peer into each other's eyes with the instrument. There was an odd number of students in the group, and one of them ended up with no partner. It was therefore a natural action for me to offer to stand in and let him examine my fundi. In the same way in surgery I offered to act as a 'lay figure' for a teaching session; I volunteered to play the part of the patient while students learned how to drape me in preparation for an operation. (Olesen,(n.d.) reports precisely the same thing in her research with student nurses). Such participation helps to sustain the 'give and take' of rapport in the field.

On occasion, students would make bids to engage me in more active giving which were more problematic. By virtue of my research topic, they would sometimes try to involve me as an expert on aspects

of the medical school. They would try to use me as a source of 'inside information' about the nature and the quality of the teaching offered in different teaching hospitals, or by different doctors that I had observed. As I discuss later, such information is an important resource among the student body and is a recurrent topic of conversation; I offered an additional source for such evaluations. Such bids for involvement were less easy to acquiesce to, since I was usually concerned to discover the student's opinions or expectations of other clinical units and clinicians, rather than peddling my own half articulated opinions. Additionally, of course, there is the problem in situations such as this that such disclosures could 'get back' to faculty members, and that the retailing of such criticism could create an unfavourable impression with the staff. It was usually possible to deflect such student bids for information. Just as they used my research interest as the occasion for such requests for information, so I could also plead my research interest in refusing to gossip about teachers and teaching - pointing out that it might constitute a breach of confidentiality and threaten the smooth progress of the research. I would also point out that what I thought was in the nature of things far less interesting than what they thought. When I did pass on 'tit-bits' of information to students or groups of students, it was always with the specific aim in mind of testing their reactions to it - their comparisons of what they were themselves used to and what I said I had 'vaguely heard about' some clinical unit or other.

Watching, listening and recording

My periods of field observation were normally the hours of clinical work from ten o'clock to one o'clock each day. I spent these three hours accompanying the students on whatever activities were scheduled for them. This allocation of time was an extremely

satisfactory one from the point of view of doing research of this sort. The morning period was usually an active one, and required lengthy periods of concentrated observation; the afternoon was then free to write up the notes and observations of the mornings. This is an important consideration. The span of memory for field observation is short and it is important that notes should be written as soon after the event as possible - certainly within twenty-four hours (cf. Lofland, 1971). By confining the observation to the morning's teaching I was thus able to make this aspect of the research manageable.

In the course of the time I actually spend in the hospitals I had no hard and fast methods of data collection. I found that my strategies for observation and recording changed naturally as the nature of the social scene changed. Whenever possible I attempted to make rough notes and jottings of some sort whilst I was in the field. Such notes were then amplified and added to later in the day when I returned to the office. The quantity and type of on-the-spot recording varied across recurrent types of situation. During 'tutorials', when one of the doctors taught the group in a more or less formal manner, or when there was some group discussion, and conducted in one of the teaching rooms, then it seemed entirely natural and appropriate that I should sit among the students with my notebook on my knee and take notes almost continuously. At the other extreme, I clearly did not sit with my notebook and pen whilst I was engaged in casual conversations with students over a cup of coffee. Whereas taking notes during a University class is a normal thing to do, taking notes during a coffee-break chat is not a normal practice. To have done so openly in the latter context would have been to strain the day-to-day relationships that I had negotiated with the students. Whilst I never pretended

that everything I saw and heard was not 'data', it would not have been feasible to make continuous notes. As Lofland (1971) has pointed out, the practice of participant observation must always involve a degree of 'betrayal'.

> It happens that participants everywhere do and say many things they would prefer to forget or prefer not to have known, or at least not widely known. In the process of writing up his notes, the observer necessarily violates these participant preferences.
>
> (Lofland, 1971, p.108).

Such betrayal is an inescapable part of doing research of this sort, and the collection of such 'off the cuff' remarks and observations means that the notebook should normally remain in the pocket, to be resorted to only afterwards.

Less clear-cut was my approach to the observation and recording of bedside teaching. On the whole I tried to position myself at the back of the student group and make occasional jottings: main items of information on the patients, key technical terms, and brief notes indicating the 'shape' of the session (e.g., the sequence of topics covered, the students who were called on to perform and so on). As I did this over a period I discovered that a substantial amount of the interaction could be recalled and summarised from such brief and scrappy jottings. Schatzman and Strauss make the same point in their discussion of field work technique:

> A single word, even one merely descriptive of the dress of a person, or a particular word uttered by someone usually is enough to 'trip off' a string of images that afford substantial reconstruction of the observed scene.
>
> (Schatzman and Strauss, 1973, p.95)

During the first days of the research I found that I was producing 'filled in' field notes that were of a very general kind which described the broad features of the action-scenes I had observed. As the research progressed, I found that I was able to observe more selectively, and hence take more detailed notes on brief episodes of the interaction. I was then able to spend the time in noting the direct speech on the spot, and using the reconstruction 'after the event' to provide contexts for these sequences of speech. On the spot note-taking can never attain the reproducibility of a tape-recording of speech events, but a verbatim account can be approximated: what is lost is usually the false starts and hesitations that so often render totally faithful transcripts almost unintelligible on the printed page. The field notes that I introduce throughout the thesis, and which cite direct speech on the part of students, doctors or patients, are taken from such notes. Where such reconstruction of direct speech was not possible I always processed my field notes into indirect speech, and they are reproduced in that form in the thesis.

There is a constant problem that faces the fieldworker, and that is the decision over what should be sacrificed. A complete description would be well-nigh endless, and a degree of selectivity must be employed. To some extent during the first days in the field, one is, willy-nilly, selective in reporting: since a great deal that happens appears at first sight to be of little or no consequence, and its significance is easily lost on the naive observer, then the initial problem becomes one of finding and remembering something worth saying. As the research progressed, I began to focus on a number of key issues, and thus the problem of selectivity was to some extent resolved through the development and emergence of substantive themes in the collection and organisation of the field data.

There were some mornings when I sacrificed observation for recording. It sometimes happened that events which occurred during the first half of the morning and afterwards during the coffee break would seem 'too good to miss'. If I found that I had a great deal of action and talk that I wanted to record as quickly as possible, and in as much detail as I could, then I would sometimes stay on in the hospital canteen, and over additional cups of coffee, spend further time in writing field notes and reflecting on what had been said and done. The balance between the quantity of observation and the quality and depth of the subsequent writing is always an important and tricky element in the development of a field strategy. In the case of my own observations, I tended to proceed on the basis of a rule of thumb - and this was particularly so during the early days in the field. I would sacrifice further observation if I felt that in monitoring the morning's activities, I had made some sort of 'breakthrough'. It might be that something had happened that illuminated a series of earlier events, or which aptly illustrated some point that I was striving to understand. Such occasion thus seemed to require more immediate and detailed recording than might be the case if I postponed writing up the notes, and in the meantime confused the issue with yet more 'raw' observation. I worked on the assumption that a bird in the hand was worth two in the bush, in that one well recorded and illuminating event was worth more than two half-remembered, and possibly less well reported periods of observation.

The Extent of the Observations

During the first year of the research, I spent the best part of all three terms of the academic year in the field. I attended two medical units during the first term, a further two during the second term, and one more in the third term. During the second year of the research I spent the second and third terms observing surgical work.

Over the spring term I attached myself to two surgical units, and in the summer term I attender an additional surgical unit. (There is no fourth-year teaching of surgery in the autumn term).

I did not spend every available day observing in the wards: in general, I tried to spend between three and four weeks with each unit. I did attempt to put in an appearance on the wards on every day of that period, even if I was not with the students all the morning. The allocation of time was a reflection of my attempt to achieve some degree of balance between breadth and depth of coverage. As my field work got under way, it became apparent that the distinctive styles of the individual clinical units, and the contrasts between them was an emergent and dominating theme in students' discussions and their pre-occupations. I was therefore eager to sample a range of different units for myself. At the same time, it was clear that there was insufficient time to attach myself to all the available clinical firms. A period of at least a few weeks was needed to cover the activities of a firm. In some cases, there were consultants who taught only one period a week, or there were student activities that were scheduled for only one day a week. To achieve even a limited acquaintance with these aspects of the work of a clinical unit, a stay of several weeks was necessary. However, I also found that by a month of daily participation and observation, many of the features of life in the unit which had appeared distinctive were tending to become familiar, and that the freshness of my perceptions of the unit was starting to wear off. When such a sense of the familiar became apparent, I would try to move on to a new unit; by such moves I was forced to make the necessary changes in perception and understanding which threw the most routine affairs into a new relief.

Obviously, the timing of my field work was determined by the calendar of the academic year. There was no real necessity for me to decide just when to enter the field and when to leave it. Whereas some writers on participant observation have noted the problem of 'closure' - of when it is time to leave the field and terminate the observations: e.g., Lofland (1971) - it did not arise for me.

I was presented with something of a fait accompli: at the end of each term, and finally at the end of the academic year, there was no problem of how to stop my work with the students - they all disappeared anyway. In the same way, the beginning of new terms provided me with ready-made points of entry into a new clinical unit. Since it was the students' first day in the new milieu, it was easier for me to establish myself as part of the scene. For the units that I joined at the beginning of a new term, there was, I felt, less problem in becoming accepted and establishing my presence, than with those groups I had to join midway through a term, when they had already had time to establish themselves in the attachment.

By concentrating on just one year of the undergraduate medical course - a critical year, as I saw it - I was able to achieve a degree of detail and intensity of analysis that is, I believe, reflected in the following ethnography. Had I attempted a diachronic analysis of socialization in the medical school, I should have had to deny myself access to the fine grain of everyday life in any of the years or locales in the medical school. Whilst larger research teams - like that of Becket and his colleagues (Becker et al. 1961) - can realistically attempt more grandiose schemes of that sort, a single year's course is more suited to the one-man-band type of operation. From this point of

view it is instructive to compare Miller's study of a small group of interns (Miller, 1970) with the study of Kansas medical school. Miller's study was explicitly designed to be a parallel to the latter monograph, and in many ways resembles a scaled-down version of Boys in White. The difference in the degree of coverage, in the bulk of data, and in sheet 'weight' reflects the different man-power resources available for the two projects.

My allocation of time provided for a naturalistic sampling. My contact was mainly with the groups of students attached to the various cliniques, whose day-to-day experiences I was observing. Thus I was able to relate their talk (e.g., during interviews) to the social and educational context in which their experiences had been located. It was within these clinique groups that the students' consensus and disagreement over the nature of their clinical work were debated and negotiated.

Varieties of Method

During the first year of the research I attempted to supplement the observational material with data gathered by means of a questionnaire. It was, for instance, clear that the students I talked to or overheard in conversation with their friends offered a range of generalisations about the organisation of the medical school. As I describe below in Section II, they would ascribe characteristics to clinical attachments of various types. It appeared appropriate to try to test the generality of these views among the entire year group. Consequently, at the end of the academic year (in May 1972) I distributed a questionnaire to the fourth year students. The questionnaires were originally distributed at lectures, and I subsequently followed this up with a postal reminder. One of the students who had become interested in the research also acted as an informal assistant in distributing further questionnaires and in

collecting and returning some of them to me. A posting-box was also placed in the Medical Reading Room, where students could obtain additional copies of the questionnaire itself. In the end, completed questionnaires were returned to me by 112 of the students - that is a response rate of just under 80 per cent of the year group.

The questionnaire itself (which is reproduced as Appendix 2) was designed to investigate some general features of students' attitudes and interests (career plans, taking an 'honours' year and so on), and more detailed features of their clinical attachments and their perceptions of them. In the main, the response to the questionnaire was encouraging, and a number of the students commented to me or wrote on their own copies that it had been successful in 'asking the right questions', and in reflecting their own concerns.

In addition to interacting and conversing informally with the various groups of students, I also conducted semi-formal interviews with them. These were of an 'unstructured' sort, and were used primarily to explore students' perceptions of clinical units, their attitudes towards clinical teachers and teaching and their plans for the future. The interviews each lasted for about an hour, and the majority were conducted in my office. Sometimes it proved impossible to arrange a time for a student to come for such an interview, and we would meet in the hospital canteen, or the Student Refectory and talk over lunch, or when they had a spare half hour or so - for instance if a patient that they were supposed to be working with was unavailable for some reason. In all I conducted interviews with fifty students. As I have said, I did not use a pre-coded interview schedule. But as my first-hand knowledge of the medical school developed, and on the basis of the first few interviews I conducted - which were of a very exploratory nature, I did develop an interview guide - a check-list of broadly defined areas that were of

interest to me. I did not necessarily stick to the sequential organisation of the check list, but as my conversation with my individual student developed, I bore these topics in mind, and would steer the conversation onto them as the time and opportunity presented themselves.

Systematic Observation?

As I shall discuss in more detail later, there have been a small number of observational studies of clinical instruction. These have been based on the use of pre-coded schedules and/or time-sampling techniques for recording the content and duration of such bedside interaction.

During the early days of the research I did consider developing some form of 'systematic' observation schedule (in the sense of systematic employed by Medley and Mitzel, 1963). In Section III, I discuss this approach to the observation of teacher-student interaction in some detail, and particularly its shortcomings. But the technique does have its attractions, in terms of simplicity of use, and in allowing a fairly straightforward method of comparison (e.g., across settings, across subjects and across individual teachers of cf. Delamont, 1973). However, the idea of developing such a research strategy was rejected, mainly on two grounds. Firstly, the development of such a pre-coded category system presupposes knowledge of the sort that I was trying to obtain through my observations - that is, to construct such a schedule demands that one already understands the important features of the interactions and can codify them. Yet such an understanding is an end-point of a competent ethnography (cf. Goodenough, 1964) rather than a starting point.

Secondly, the use of such pre-coded observation schedules normally necessitates the continuous monitoring of the interaction, and continuous recording onto a check-list or matric of categories. Although the use of

such instruments might well have proved feasible in the teaching room, it would have been very problematic in other situations. Given the nature of bedside work, such obvious and continuous recording could well have threatened the situation, and brought into question my presence there. The huddle of a small group of people round a hospital bed is in many ways a very intimate affair - and certainly one which is very different from the average lecture theatre or school classroom.

One illustration of the potential problem of using such observation schedules was provided during my early days in surgery. The chief of my first surgical unit had taken me into the doctors' room and introduced me to the various surgeons there. He told his colleagues, "This is Mr. Atkinson, who is doing a survey of surgical teaching". With this rather brief introduction, he left me with them. Among the group of doctors was one of the other consultant staff. I amplified a little on what the chief had said, and asked him if he would be agreeable to my joining the students and being present whilst he taught on the wards. He agreed, provided, as he said, that I did not 'wave sheafs of check-lists about'.

I am sure that 'waving check lists around' would certainly have made me a much more conspicuous member of the bedside group, and I have no doubt that the staff, students and patient, would have been much more acutely conscious of my presence as an 'outsider' than they appeared to be with me just standing or sitting with them, and jotting down the very occasional note. In addition to these essentially pragmatic disadvantages to such methodological approaches, there are also severe weaknesses in their presuppositions and the sort of data that are generated in their use. These are discussed more fully in the context of my review of previous research on clinical teaching in Section III below.

In the event, then, I relied primarily on three basic methods of data collection - participant observation, interviewing and a self-administered questionnaire. In so doing I was attempting to combine these available methods in such a way as to maximize and trade on the strengths of each, in order that they should complement each other. My approach was therefore one of 'triangulation' - as characterised by Denzin (1970), who draws on the work of Webb et al. (1966), on non-reactive measures. The rationale for such a combination of methods is outlined by Zelditch (1962). He examines the adequacy and efficiency of these three approaches in generating information of different sorts. Whilst they may each be adapted to provide data in a range of forms, each is most appropriately geared to a particular range of data collection and analytic uses. Zelditch suggests that the technique of participant observation is ideally suited to the documentation of 'incidents and histories' (i.e., sequences of events and incidents). Participant observation most aptly provides access to the negotiation and emergence of meanings in the actual occasions of their use. On the other hand, it may be expedient to gather information concerning the distribution and frequency of events over a wider range of members, occasions, locales and so on; such information is both adequately and efficiently gather by means of enumerations and samples - including the use of survey techniques. Further, Zelditch argues, it may be part of the research enterprise to gather informants' accounts concerning 'generally known rules and statuses' - and he suggests that informant-interviewing is a particularly apt method to be employed for such investigations.

Hence all the three methods can be used to garner three varieties of data, which may all complement each other. The categories

that Zelditch proposes (of both methods and data-types) are by no means water-tight, and he himself describes them primarily for heuristic and illustrative purposes, rather than for an exhaustive description of research practice. Thus 'rules and statuses' may be investigated by means of participant observation, or by means of sample surveys. Similarly, it is also possible to generate enumerations of sorts on the basis of field observations. Indeed, this variation must be mentioned in the present context, as it relates closely to the study of medical education. In conducting the Boys in White study, Becker and his collaborators attempted to derive some quantitative analysis from their field observations (Becker et al., 1961, pp.38.ff). They did so in an attempt to check the validity of their inferences concerning the existence of students' 'shared perspectives', and the content of these perspectives. They enumerated their field-note items in accordance with a number of criteria. They distinguished between recorded 'statements' and 'activities', distinguished activities as 'group' and 'individual', and statements 'made to observer alone' and 'to others in everyday conversation'. They also distinguished between statements that were volunteered and those that has been prompted, elicited or directed by the observer. Hence all the data bearing on a particular theme could be enumerated and classified according to these criteria. In this way it was possible, for instance, to discover whether 'a perspective was "all talk" and unrelated to the students behaviour'. The authors also used a similar technique for the investigation of the relative incidence of data tending to confirm or disconfirm their identification of shared perspectives among the student body. In this instance, the technique of participant observation was adapted to yield enumerations, and a

variety of contingency table. This particular approach has much to commend it, but there are practical problems involved in pursuing it. In the first place, it must be recognised that it demands a relatively large data-base, if sufficiently large numbers of relevant episodes and reports in the various categories are to be available for such manipulation. The resources open to a research team (time and personnel) make the accumulation of such a mass of data feasible. In projects with more modest resources of time and labour, the procedure becomes much more difficult, and of dubious value. In addition , as the research project unfolds, the precise focus of observation and recording may change. Such a shifting focus may be unintentional, but is often a deliberate part of the research strategy. The observer is always forced to be selective in the events and activities that he at ends, and may therefore decide to concentrate on rather different aspects of the talk and action at different times. Since these changing periods of emphasis may not necessarily be of the same duration, the summation of records of events may be distorted by such shifting emphasis. For these reasons I have not attempted - indeed, I have not found it feasible - to <u>enumerate</u> and cross-tabulate extracts from my field-notes.

It is perhaps indicative of the problems involved that Miller (1970), in a study which quite explicitly parallels <u>Boys in White</u>, does not attempt the procedure of field-note enumeration. He too notes the problem of shifting perspectives on the part of the ethnographer:

> After I had described things to my satisfaction, I began to leave out what I already knew or had observed many times ...
>
> (Miller, 1970, p.29)

On the other hand, the importance of negative cases remains very important, and Miller also notes this:

> All the data in support of a hypothesis were collated and all other data were searched for negative cases... I considered any exception that could not be explained to be sufficient reason for rejecting the hypothesis or changing it so that no unexplained exceptions remained in the data.
>
> (Miller, 1970, p.33)

In the same way I too have attempted to take full account of any counter-examples, and to document them in the course of analysing my field observations.

However, where I feel the need to support or check the impressions contained in the data generated by means of participant observation I have resorted to the enumerations made possible by the self-administered questionnaire; and where I deal with students' typifications and commonly known strategies of student career-management, I also draw on the material produced by my interviews with the students.

The participant observation that I engaged in was not a unitary method in itself. As I noted in the section dealing with 'roles in the field', there are several possible varieties of field observation available. Schwartz and Schwartz (1955), suggest two alternatives - 'passive' and 'active' roles for the researcher in the field. Of these ideal-types, they comment that the 'passive observer' interacts with the observed as little as possible, whereas the 'active' observer 'maximizes his participation with the observed in order to gather data and attempts to integrate his role with other roles in the social

situation'. Gold (1958) elaborates these role formulations into a four-fold classification, dependent upon the researcher's degree of participation and integration in the social setting under investigation ('the complete participant', 'the complete observer', 'the observer-as-participant' and 'the participant-as-observer'). The adoption of a single role in the field is not always possible or desirable. The exact nature of the role adopted, the nature of the observer's interaction with the observed, and hence the nature of the data collected are context specific; they may vary from setting to setting within the field.

The 'field' is not a homogeneous setting, within which is unitary set of behaviours can be adopted by an ethnographer. Members themselves normally recognise different social contexts, and different styles of social interaction that are appropriate within them. 'The field' is fragmented, and composed of a number of such settings. In the context of the present study in the Edinburgh medical school, there were several such settings, in which my participation with the staff and students differed. At one extreme there were occasions when doctors and students were working with patients - in the wards, out-patient clinics or operating theatres. At such times, my active involvement, and my initiation of interaction was at a minimum (although by my mere physical presence, I was <u>part</u> of the action scene). My position approximated to that of the proverbial 'fly on the wall'; although I was not invisible, I was normally a silent observer, and my role was almost entirely 'passive'. On the other hand, during students' coffee-breaks, or while we were travelling on the coach to one of the outlying hospitals, I was able to take a much more 'active' role in questioning the students and in pursuing conversations with them.

I was able to gather rather different sorts of information in these two different sorts of settings. In the first type I was confined almost entirely to recording the ongoing interaction between the various participants in the teaching session. During the more 'informal' interactions with the students, on the other hand, I was able to overhear and to elicit students' reflections on teaching they had just received, or their expectations of the teaching they were about to receive. Indeed, the punctuation of the teaching by periods in the hospital canteen or on the coach provided excellent opportunities for the collection of these different sorts of material. Thus even <u>within</u> the broadly defined 'ethnographic' approach of participant observation, I was able to 'triangulate' - by observing the teaching encounters and engaging in talk about the teaching I had seen with the students subsequently.

The advantages of this 'within-method triangulation' are apparent again in connection with the Kansas study. Becker and Geer (1958a), compare the value of participant observation and interviewing as methods of data collection, in a methodological paper deriving from their collaboration on medical education. They draw attention to the possible limitations of interviewing. In general, they suggest that the interview is inferior to participant observation - indeed, they go so far as to state that the latter method 'gives us more information about the event under study than data gathered by any other sociological method'. This has led to some misunderstanding - for instance, by Trow (1958) who misses the crucial significance of the word 'event' in their formulation (Becker and Geer, 1958b). Becker and Geer point out, both in their original article and in their reply to Trow's criticisms, the superiority of the <u>combination</u> of the experience of

events at first hand by the ethnographer, coupled with talk about these events and reflection on them by the participants. As they put it, 'if we can see an event occur, see the events preceding and following it, and talk to various participants about it, we have more information than if we only have the description which one or more persons could give us'. (Becker and Geer, 1958b). Trow takes them to task for overstating their case, for elevating participant observation to an undeserved position of preeminence, and to some extent he is right in this. It must also be stated that (to paraphrase Becker and Geer), 'if we see an event occur, see the events preceding and following it, and talk to various participants about it, we have more information than if we have only observed the event'. Both methods of data collection are equally 'natural' and adequate to the phenomena under investigation. Members normally engage in activities and in talk about them afterwards - with co-participants, and with persons who were not present. It was clear in the course of my research that the students routinely engaged in 'story-telling' about their daily experiences on the wards, and in collectively mulling over the teaching that they had received. The alternation of teaching and 'free' periods of time provided me with the opportunity to gather the different sorts of information that I have outlined.

Ethics, Medical and Sociological

Both the method and the subject matter of the research raise questions of ethics. My presence on the wards, insofar as I was not medically qualified or a medical student myself, was something which raised problems of professional ethics in my dealings with a number of clinicians.

During the initial phases of my negotiation of access to the wards, I was informed that a few of the senior consultants had heard of my projected research and were voicing profound reservations. These were couched in terms of doubt as to whether my presence would be

justified, or even permissible, in terms of the ethics of medical practice. During the preliminary negotiations with the Department of Medicine such misgivings were eventually allayed, and none of the physicians I approached withheld their general permission to join their cliniques. However, during my later negotiations with the surgeons, although general permission had been forthcoming from the Department of Clinical Surgery, one consultant, when approached, did explicitly deny me access to his wards on the basis of medical ethics. It was, he told me, contrary to his interpretation of his professional code of conduct to allow me to attend his ward rounds: he added that he found it hard to understand why the medical school should have agreed in principle to my research proposals.

More generally, the problem of medical ethics cropped up only sporadically. One consultant on a medical unit took me aside and explained to me on the first morning that I met him that he was unhappy about my presence with the students: his Hippocratic oath, he explained, permitted him to demonstrate only to those who were 'apprenticed to the art'. He added that his reservations were reinforced that morning by virtue of the fact that he intended teaching on a female patient. On that occasion I explained to him that I had no intention of placing him in a difficult position and volumteered to withdraw from the morning's teaching round. I did so with as good a grace as I could manage. It appeared that the problem of exposing a female patient before a layman was of more importance than the general ethical position, as I was subsequently permitted to accompany the same consultant on teaching rounds.

This problem of female patients provided me with some uneasiness

on my very first morning on one medical unit. When I went on the wards with the chief of the firm he asked me to stand some way away from the bedside, and then drew the curtains round the patient's bed - leaving me outside them. I could see nothing and I could hear very little of what was going on. I was left stranded in the middle of the ward with nothing to do but stand rather nervously by the nursing station, hoping that nobody would come and accost me, asking what I was doing there. It had been done without a word of explanation on the part of the physician, and I was worried that I had not made my wishes clear to him - that he was expecting this to be the regular pattern of my 'observations'. After a quarter of an hour or so, the consultant and the students emerged from behind the screens and he explained to me that they had been examining a young woman with a difficult pregnancy. He had therefore not wanted to embarrass her with my presence. After that there was no question of my being excluded from his bedside teaching sessions, or those of his colleagues on the unit. Of course, given the nature of the work and teaching of general medicine and surgery, gynaecological examinations were not a regular part of the bedside instruction, and my presence was not normally a problem from this point of view.

My relations vis-avis patients raised other questions of ethics. It was generally part of my negotiations for access that patients should be made aware of who I was and why I was present. This was a condition that I agreed to, as I had no wish to engage in more covert observation that I could avoid. However, in the event, my identity was never fully disclosed to any of the patients whom we went to see on the wards, and I was never explicitly introduced to them. As far as the patients were concerned, then, I was presumably a member of the student

group, or another clinician - albeit a strangely silent one. When I joined students for their individual work with patients, they would often introduce me to the patient with some very cague phrase about my being there 'to see what we're doing' - without indicating that I was not a regular member of the hospital or medical school. Members of staff never even volunteered such vague introductions.

To that extent, then, although I was an 'open' observer with regard to the doctors and students, I was a 'disguised' observer with regard to the patients. From my own point of view, this was less a deliberate research strategy, but more an exigency forced on me by the situation I was in. There was no question that in setting up teaching situations control did not lie with the teaching consultants, registrars or housemen. To that extent, both the negotiation of permission to teach, and disclosure of my identity, were the prerogative of the clinicians themselves. For me to attempt to enter into separate negotiations, and to achieve an open identity for myself when the clinicians remained silent, would have been to question the position of the doctors. It could have endangered the entire enterprise.

Just as I was a disguised observer vis-avis the patients, I was in a similar position with regard to the nursing and other para-medical staff. As I mingled with the various groups of students I passed as a student myself - and I very rarely had occasion to negotiate a fresh identity with members of the nursing staff. The main occasion when I did so was on a surgical unit, when a theatre sister took an impromptu session with the students on basic surgical theatre technique (scrubbing up, putting on gloves and gowns, etc.). (This session is described below in Part III). This fact is in itself telling. It highlights the

degree of separation between the physicians and medical students on the one hand and the nursing staff on the other. There was little interaction between the two sides in the course of the clinical work that I observed in my two years in medicine and surgery. Rather, one's impression was one of a relatively self-contained group as clinician and students moved around the wards (see below, Part III). It was therefore rather easy for me to pass as a taken for granted, socially 'invisible' medical student like all the others.

The problem of 'disguised' or 'secret' observation has aroused considerable controversy in the literature of participant observation (e.g., Lofland and Lejeune, 1960; Davis, 1960; Roth, 1961; Humphreys, 1970). One aspect that has been raised in this context relates to the relative power of the researcher and his 'subjects'. For instance, Davis asks himself and his colleagues:

> Is such license complete or partial? Enduring on all occasions, or terminal according to time, place and circumstances? Contingent when studying 'good' causes and institutions, but uninhibited when studying 'bad' ones? Equally applicable in whatever degree to the powerful and powerless alike or, as a matter of expedience, of differential applicability? (A colleague has ventured the disquieting allegation that while sociologists are as a rule scrupulous in setting forth their research auspices and purposes when making first-hand studies of such powerful groups as the military, labour unions and liberal professions, they tend to be a good deal less conscientious on this score when studying such powerless groups and aggregates as isolated religious cults, deviants of various kinds and anonymous respondents at every twenty-third household).
>
> (Davis, 1960).

The distribution of power and authority between the various parties was in great measure a determinant of my own position in the field. But the situation was not simply a reflection of my position vis-a-vis a single aggregate of 'subjects'. Most commentators imply that in one's field work, there is a single category of persons - the 'subjects' with whom the fieldworker is either 'open' or 'secret'. For my part this was not the case. Not only was I concerned with staff, students and patients, but I was implicated in their power relationships. For instance, although I was 'open' with the students, once a teaching clinician had accepted me into a tutorial group, it seems extremely unlikely that the students would have presumed to question my presence. The power to grant or withhold the privilege of access to the group and its daily life was not equally shared by the students and the staff. To a considerable degree it was quite possible for the staff to 'foist' me onto their students, whilst the students had nothing like the same discretion in deciding whether I should observe their teachers. In the same way I was very largely dependant on the doctors for my identity with the patients. It was very definitely the doctors who called the tune in that situation - for me, the students and the patients. Although the others had some leeway in redefining the situation, it was the doctor who routinely defined the task and who coordinated the activities of the actors. Had I made an issue of disclosure, then it was as much my position with the doctors as that with the patients that would have been under question.

Does the fact that the patients did not know who I was mean that I arrogated to myself some privileged status as a detached and uninvolved observer, above such personal and moral questions? I do not think so. On the contrary, I believe the reverse to be true. I believe that it was

rather a recognition that I was on a par with the students and the other actors, and was myself implicated in their day-to-day interactions. Roth (1961) has a relevant comment here:

> When we are carrying out a piece of social research involving the behaviour of other people, what do we tell them under what circumstances? Posing the question in this manner puts us in the same boat with physicians, social workers, prostitutes, policemen and others who must deal with information which is sometimes delicate, threatening, and highly confidential. We are then in a position to draw upon our knowledge of these other groups and the way in which they handle information to carry out their work and to draw analogies between these professions and our own.

As I have tried to make clear, I was indeed 'in the same boat with physicians'. There were many occasions and many patients when the doctors did not disclose information that they had access to: in some ways, my identity was one more piece of such information. In a study which is addressed to the control and exchange of information between students, patients and doctors, what the participants did or did not do with their knowledge of my identity was itself a very revealing source of insight into dynamics of information-control at the bedside.

I am not trying to moralise on this point, and on the practices of the doctors concerned. As I go on to discuss later in this thesis, the creation and maintenance of a bedside interaction is not a straightforward matter. The presence of students is itself a potentially threatening one: their competence in clinical work and interactions cannot be assumed, and their participation is ambiguous, in that they are partly 'medical' people, and partly 'lay' people. The explicit addition of a totally 'lay' person could have strained the encounter to

an intolerable degree for the other participants. It is part of the price that one pays for undertaking 'naturalistic' research that one's fate in the field is very largely in the hands of others. The rhetoric of 'control' is part of the language of experimental or quasi-experimental research: it is inherent in the method that the 'subjects' of experimentation, and the setting of their behaviour should be under the control of the researcher to the maximum extent. In field work, such control has to be surrendered. The 'subjects' are responsible for their own activities and for constituting the setting of the research. In my own fieldwork I was to a great extent in the hands of the consultant doctors in matters of what I could and could not do, where I could go and so on. In this way, my relationship with the patients was almost entirely mediated by the acts of the doctors (and, occasionally, the students). My stance of 'closed' or 'surreptitous' observation of the patients was, therefore, not the result of my superior power (as Davis implies), but a reflection of my inferior position. It must be borne in mind that the stutus of the students was not always made clear to the patients. Sometimes doctors would introduce them as 'a group of medical students', sometimes as 'these young doctors'. (As I discuss below, there was some difference in the extent to which students thought that the patients had oriented to them as 'doctors' or 'students'). To that extent, my own equivocal position was analogous to that of the students themselves.

Finally, it must also be added that in order to preserve the confidentiality of my observations, and the anonymity of the staff, students and patients concerned, all the names used in the course of the thesis are pseudonyms. I have not attempted to disguise the identity of all the hospitals involved - they are too well known in

the context of the Edinburgh medical school for this to be realistic. However, there are occasions when the use of a particular hospital's name would limit reference to a single clinical unit, and hence by implication to a single chief of a firm. In such cases I have not referred to the hospital by name.

The Researcher.

It would be idle to pretend that the conduct of the research had no effect on me. On the contrary, it was a constant source of conflicting emotion. On the one hand, it provided areas of great personal satisfaction. On the other hand, it provided numerous occasions for embarrassment and anxiety. As Olesen and Whittaker point out:

> The reading of most fieldwork studies leaves the impression that field workers glide silkily and gracefully through the process without a twinge of anxiety or a single faux pas.
>
> (Olesen and Whittaker, 1968, p.44).

Yet the personal nature of research of this sort means that the field worker cannot be seen - and cannot see himself - as a well-drilled automaton. The conduct of participant observation requires considerable personal investment. The pay-off on such an investment can be considerable, but the costs can be great as well.

The topic of personal anxiety in the fieldworker has been noted before. Hughes (1960), for example, commented from the perspective of an experienced field researcher:

> I have usually been hesitant in entering the field myself and have perhaps walked around the block getting up my courage to knock at doors more often than almost any of my students. (I have been doing it longer).
>
> (Hughes, 1960, p.vi)

Certainly fieldwork and participant observation can place considerable personal strain on the researcher himself. It may require him to 'lay himself on the line' in a number of potentially strange, difficult or embarrassing situations.

The disorientation experienced by social anthropologists in the field amongst alien cultures - the 'culture shock' that they must undergo - is proverbial. Such social and personal isolation, coupled perhaps with physical discomfort, and even physical danger, is often seen as a necessary baptism of fire in which the novice anthropologist proves his mettle. (Such problems are documented in a number of accounts oc anthropological fieldwork - e.g., Malinowski (1967); Golde (1970); Spindler (1970); Wax (1971). For the sociologist engaged in research within striking distance of his own home territory the isolation may be less extreme, of shorter duration and more easily escapable. Nevertheless, whilst the observer is 'in play' with the members of the community or organisation, he is concerned with, he may also experience a degree of Angst. Certainly although I was conducting my research on fellow members of my own University, I periodically found myself losing my nerve and having to force myself into the setting I wished to observe. At other times, although not faced with extreme emotional difficulty, I felt uneasy - out of things - and often heartily wished that I could 'cop out' of such research. The temptation to opt to do the study by remote control - by anonymous postal questionnaires, library research and so on was often very strong. I was frequently aware of my precarious position in the medical school. Since the teaching doctors had the power to order students to leave the wards if they were displeased with their appearance or behaviour, their ability to do the same to me was very obvious, Unlike the students, I could claim no legitimate 'medical' reason for my presence.

In addition to general problems associated with the research approach I adopted, the subject-matter under observation was also a potential source of personal response. I was by no means squeamish and I was able to accompany the students and surgeons and watch major operations without a qualm. Yet there were times when I was not so immune. On one occasion in a surgical unit I noted the following:

Mr. Harrison led us out of the teaching room, saying that there was a patient from Wards __ and __ and he thought that we would be interested to see her lesions.

I commented to two of the girls that I didn't think I really fancied looking at the lady's 'lesions': one of them replied that of course 'lesion' could mean anything down to a scratch on the nose.

As it happened, my own worst fears were quite justified. Mr. Harrison took us across the landing to the procedure room by the men's ward. We all clustered behind a screen round a bed in the corner - it was quite a squeeze as we all shuffled round. The bed was occupied by a very fat woman, in middle age. Mr. Harrison said that he had brought some medical students to see her: it was clear that she didn't really have much choice in the matter, as we were all very much installed round her bed.

The patient had dressings across her chest, and Mr. Harrison having gone to enlist the aid of a nurse, began to undo them. As she unwound the bandages, and removed the dressings, she uncovered the most appalling lesion that I have ever seen. I didn't look so closely that I could describe it at all accurately, but the woman's entire left breast appeared to have been eroded, and was the site of a ghastly mass of ulcerated and discoloured flesh. I was very grateful that I was at the back of the group and could keep the patient well out of my line of vision behind the backs and shoulders of some of the students. Looking at their faces, I was quite surprised at

their impassivity in the face of this frightful mess. I half expected that one of the girls might flake out, but apart from some very fixed looks, and some very pale faces, there was no observable untoward reaction. I could feel my own face going flushed.

My subsequent conversations with the students suggested that they too were all profoundly distressed by this particular case, just as I had been. There were also some distressing episodes in medical wards. On one attachment we paused on a ward-round to observe a house-physician who was already busy at a patient's bedside, preparing to take a sample of the patient's bone-marrow. Such samples are normally taken from the breast bone, but it was explained to us that a previous sample from that site had proved inadequate: it was not clear whether this arose from poor technique on the part of the physician who had carried out the procedure, or from a physiological cause. At any rate, it was now necessary to take a sample of marrow from the patient's iliac crest - in the pelvis. The procedure is carried out by boring out a small core from the bone with a cork-screw-like instrument. The patient was an elderly woman. As we watched, the teaching clinician explained to us that it was not really possible completely to anaesthetise the bone against the procedure. We looked on as the houseman performed the procedure. As the young doctor bored into the patient's hip, and pulled out the plug of marrow, she screamed out in pain and cried out 'Mother, Oh, Mother!' On this and similar occasions I was very glad that - unlike the students - I was under no oblication to peer closely at what was going on. One or two of the students were very evidently distressed by the procedure, and one of the girls went very white and had to leave the bedside. She left the ward and went to sit down for a while to recover from her faintness. Although I was not an 'involved'

member of the group, I also felt somewhat shaken. Subsequently, the other students from the group reported that they too had felt distressed. Of course, such incidents were not the run-of-the-mill cases that we saw day in day out on the wards. They were very much the exceptions. However, the awareness that such distressing episodes could take place also served to increase my feeling of insecurity on the wards.

In addition to such specific incidents, there were more general areas of discomfort. I certainly did not enjoy the few visits I made to the Acute Poisoning Unit - a forbidding ward, with little of the domestic bustle of the general wards, and one which dealt with a steady turnover of attempted suicides. I and the students were regularly depressed by out visits to this ward. Similarly, a visit to a hospital that housed long-term neurological patients was at times harrowing. As we left the ward for a mid-morning coffee-break on one such visit, one of the students exclaimed, 'Oh, God, preserve me from disseminated sclerosis!' and I concurred with him. It was far from pleasant to visit and talk to the patients with irreversible, degenerative disorders of the central nervous system. Their speech was affected, they were spastic, and presented a very sorry sight. In such surroundings it was impossible to 'switch off' and act as if I were a 'detached' observer.

In general, I felt more at home and more at ease on medical units than I did when on the surgical wards. I never felt entirely at ease with the post-operative paraphernalia of gastric tubes, drains and plastic bags that festooned some of the patients. Newly performed colostomies and ileostomies were relatively common, but were never very pleasent.

Familiarity and Learning.

One of the methodological problems encountered in the course of the research arose by virtue of the social context of medicine. Medicine is an important and intrusive element in contemporary culture. From an early age small children are encouraged to play at being doctors and nurses. Wanting to be a doctor is one of the earliest and most valued occupational ambitions to crystallise, and it is rated highest of school pupils' occupation ratings (Butcher, 1969). The doctor, his work and his surroundings are common features of popular culture. Both the general practitioner and the hospital specialist figure as heroes in a wide range of popular literature (cf. Atkinson, 1971). Television soap operas such as Emergency Ward 10, Ben Casey, Dr. Kildare, General Hospital, Dr. Finlay's Casebook and Angels, all present vivid portrayals of various aspects of medical work. Whilst the characters and actions of such doctors are usually larger than life, their creators are normally careful to produce an air of authenticity and realism in their representation of the medical milieu. Medicine and hospital life also figure prominently in many radio and television documentary programmes, as well as in many other sorts of journalism. All in all, a broad picture of what goes on in a hospital ward is part of the stock of knowledge which is possessed by every competent member of our culture. As Blanche Geer writes in her discussion of the generation of problematics in the field:

> The concept of working hypothesis is not difficult, but field workers often have trouble explaining it to others and sometimes to themselves. The concept is clear, but its mechanics, the doing of smaks of magic. Untrained observers, for instance, can spend a day in a hospital and come

> <u>back with one page of notes and no hypotheses. It was a hospital, they say; everyone knows what hospitals are like.</u>
>
> (Geer, 1964. My emphasis).

When I began my research I was in no sense a 'trained observer', and although my first field notes were not as sparse as Geer suggests, I was certainly in some difficulty with much of the action that I observed. Although I was able to get some useful preliminary material from the various introductory lectures I attended with the students, when it came to my own observations of 'where the action was", I was much more at a loss. The problem initially resided in the obviousness and familiarity of the action scenes that I saw. The general features of the conduct of clinical medicine, and of clinical teaching are generally familiar. More or less colourful caricatures are available to many, if not all, members of our culture. As a reasonably well read and well informed layman, what I observed during my initial period in the field came as no great surprise. In Britain, such readily available portrayals of the conduct of clinical teaching are furnished by Richard Gordon's fictionalised account of life in a teaching hospital - particularly in the first volume of his saga - <u>Doctor in the House</u>. Although this book is explicitly humorous in intent, and it is drawn in somewhat exaggerated terms, <u>Doctor in the House</u> is based on first hand experience in a London teaching hospital, and it rings many bells with qualified doctors. As Cramond has recently pointed out:

> One of the fascinating things about Dr. Richard Gordon's book Doctor in the House, was its universality. It did not matter what Medical School one was trained, one could unerringly identify the broad characteristics of the better remembered, somewhat eccentric Medical School teachers.
>
> Cramond, 1973, pp.13-14)

Despite the recent burgeoning of the sociology of medicine in Britain, it remains the case that Gordon's novels probably are still the only widely available account of undergraduate medical education in Britain. Time after time, I was struck in the course of my own research by what a faithful picture of many aspects of clinical teaching that Gordon managed to get into his book. Although Gordon writes of a rather earlier age, much of what he describes is still applicable, and I have quoted passages from Doctor in the House where they parallel my own observations.

Becoming the Expert.

It is the task of the ethnographer to act as a selfconscious novice - to acquire knowledge of social organization and culture whilst monitoring his or her own learning process.

> An observer, almost by definition, is one who does not understand. He is ignorant and needs to be taught. He has always to be watching and asking questions, whether his role as observer is known or unknown in a setting. In other words, he is a student.
>
> (Lofland, 1971, p.100).

In the course of my fieldwork in the medical school I found myself needing to gain knowledge of two sorts. Both were varieties of 'inside' knowledge in the medical school, and both constituted areas of learning for the students themselves. They could be referred to as 'organizational' knowledge and 'technical' knowledge respectively. Whilst the two intersect in many ways, I distinguish them here for analytic purposes.

The first type of knowledge that I refer to has been widely researched and commented on. It is the 'folk taxonomy' of persons

and occasions employed by groups. They are the everyday, practical ways in which workers classify their clients, their routine troubles and so on. These taxonomies are embodied in 'situated vocabularies' (cf. Mills, 1940) which encapsulate members' typifications of their work situation - they are what Lofland (1971) calls 'member-identified types'. They have been described in a number of different settings: their passengers as seen by taxi-drivers (Davis, 1959); prisoners' views of their fellow inmates (Giallombardo, 1966); Chicago negroes' views of race-relations (Strong, 1943). These types identify recurrent problems for the group members, and their invocation is normally accompanied by typical courses of action in perceiving, interacting or dealing with the designated persons or actions. Such a situated vocabulary has been identified in relation to medical students (Becker et al., 1961, p.328), in their typifications of patients. The medical students at Kansas University recognised a type of patient whom they referred to as 'crocks' - a term used to 'refer to patients who disappoint them by failing to have pathological findings'. By contrast, although not specifically designated by any single term, the 'proper' patient was one who did have an identifiable (preferably treatable) illness.

Such vocabularies as these articulate what Strong (1943) calls 'axes of life', by which he means the 'crucial lines of interest in the life of the group... which constitute frames of reference according to which the group categorises some of its members'. Manning (1971) suggests that the collection of such situated vocabularies constitutes a fundamental mode of data collection and analysis of socialisation processes. As novices are socialised into organisations, they acquire their sense of social structure, and of their position in it, through

the medium of such typifications (cf. also Stoddart, 1974; Wieder, 1974).

An important focus of my own research in the Edinburgh medical school was therefore attending to the recurrent vocabularies whereby the experience of clinical medicine was typified by the students and staff, and how the students used such categories in the course of generating and sharing their collective views of the medical school. The ways in which the students use such typifications are discussed below. Here I shall simply summarise the nature of the typifications that I discuss. Firstly, there were the ways in which the students came to categorise and characterise the various segments of the medical school - the academic and clinical subjects, the various teaching hospitals associated with the University, and the various clinical units in the hospitals. Closely related to these were the various designations used by the students to describe their clinical teachers, and how they used their descriptive categories to produce types of doctors and their teaching. Thirdly, I attended the ways in which the students themselves classified the <u>times</u> and <u>places</u> within which teaching (or other activities) took place. The students would classify occasions, and had notions which implied what might legitimately be expected to happen at different times and in different milieux. Clearly, like Becker's students at Kansas, the Edinburgh students might be expected to hold views on categories of patients, and to employ their own taxonomies of such highly relevant others. During my field research, then, I was on the lookout for the development and use of such patient-designations as part of the students' perspectives on their clinical work.

The recording of such members' vocabularies is clearly an important part of any field-researcher's task. The process of becoming competent in the daily lives of the members of a group necessarily involves the mastery of such folk-systems. The development of such comprehension is a vital aspect of the researcher's own acquisition of a sense of social reality, as it is constructed and construed by the group whose life he shares.

However, this aspect of 'inside' knowledge is not necessarily the only one which may be involved in the activities that are observed, and in which the researcher participates. In addition to the 'folk-types' that members use, there may also be highly esoteric and specialised knowledge which is the preserve of an epistemic collectivity, such as a profession. Specialist knowledge of various sorts is the stock-in-trade of most occupational groups, and the question arises of the extent to which one needs to master aspects of this expertise in order to conduct research on the occupational group. This problem has not been adequately discussed by writers on field work methods. It appears to be taken for granted that such knowledge is not the proper concern for sociological investigation. Yet it is an extremely important topic and resource for the community members themselves. It may be the subject of discussion, of difference of opinion and so on amongst the experts. In the course of their day-to-day work, the members of the epistemic community draw upon their expertise in the actual performance of their daily tasks, and in arriving at decisions about their work.

It may, therefore, be of importance, that the ethnographer gain some acquaintance with the esoteric knowledge of the group or

occupation under observation. Much previous research on professional socialization has suffered on this score, inasmuch as the transmission and management of esotric knowledge has been under-researched. Yet contemporary research on the sociology of education has drawn attention to the need for such attention to the content of educational processes (see Young, 1971; Davies, 1971). A concern for the management of knowledge in educational settings as a topic for field research imposes on the ethnographer the requirement of at least some acquaintance with the group's specialist knowledge. In the context of my own research, this was not too difficult. The event that I was witnessing and participating in were explicitly defined as teaching episodes; the students themselves were being taught the knowledge which formed much of the content of the interaction. Although I did not possess any special grounding in the medical sciences, I too found that I was being taught' medicine - vicariously as it were, through my participation with the medical students. Bedside teaching is an extremely vivid form of teaching; 'real' patients provide very memorable 'audio-visual' aids in teaching. Willy-nilly, I picked up a great deal of ad hoc medical information, and some rudimentary expertise in clinical medicine and surgery. I also made reference to text-books, such as Davidson's Principles and Practice of Medicine (written by members of the Edinburgh medical staff) to check up on cases that I had seen on the wards during the day.

The students often found it hard to believe that I was genuinely capable of understanding what was going on - and on occasion would commiserate with me on my 'obvious' inability to follow what I was observing. They sometimes seemed unable or unwilling to believe that I was indeed able to keep up with at least the greater part of what

wasgoing on. Some students even appeared to resent my ability to gain some passing acquaintance with their subject, without the background training in the basic and medical sciences. However, much of what the students were taught was translated into everyday terminology; also, much of the clinical methodology that they were taught was directly based upon mundane powers of observation and reasoning, and as such, it was accessible to anybody who had 'privileged' access to the teaching occasion. Whilst diagnostic inferences may be based partly on knowledge of physiology, anatomy and biochemistry, the observation of patients' complexion and general physical appearance, their gait and other behaviour, do not normally depend upon any such esoteric knowledge on the students' part (cf. Coulter, 1973, p.114).

The topic that I am considering here can be seen as one concerned with the social distribution of knowledge in the field. In developing it further I shall begin by outlining Schutz's characterisation of ideal-types of knowledge, and their associated roles. Schutz (1964a) distinguishes in people's repertoires of knowledge about the world, three types of knowledge. In the first place, there are areas where we have 'explicit knowledge <u>of</u> what is aimed at'. Secondly, there are areas where we have 'knowledge <u>about</u> what seems to be sufficient'. Thirdly, there 'comes a region in which it will do merely "to put one's trust"'. These varieties will be related to the degrees of relevance to the actor in his daily life - there will be ranges of topics in which he needs a close and detailed knowledge, and ranges where a 'nodding acquaintance' is sufficient for his normal practical interests. Schutz uses this notion to develop an ideal-typical formulation of three social types associated with three varieties of knowledge (Schutz, 1964a, p.93ff.) From the point of view

of any particular given activity or interest, we can distinguish 'the expert', 'the well-informed citizen' and 'the man-on-the-street'. Schutz himself describes these types in the following terms.

> The expert's knowledge is restricted to a limited field but therein it is clear and distinct. His opinions are based upon warranted assertions; his judgements are not mere guesswork or loose suppositions.
>
> The man on the street has a working knowledge of many fields which are not necessarily coherent with one another. His is a knowledge of recipes indicating how to bring forth in typical situations typical results by typical means. The recipes indicate procedures which can be trusted even though they are not clearly understood. By following the prescription as if it were a ritual, the desired result can be attained without questioning why the single procedural steps have to be taken and taken exactly in the sequence prescribed. This knowledge in all vagueness is still <u>sufficiently</u> precise for the practical purpose at hand. In all matters not connected with such practical purposes of immediate concern the man on the street accepts his sentiments and passions as guides. Under their influence, he establishes a set of convictions and unclassified views which he simply relies upon as long as they do not interfere with his pursuit of happiness.
>
> The ideal type that we propose to call the well-informed citizen (thus shortening the more correct expression: the citizen who aims at being well informed) stands between the ideal type of the expert and that of the man on the street. One the one hand, he neither is, nor aims at being, possessed of expert knowledge; on the other hand he does not acquiesce in the fundamental vagueness of a mere recipe knowledge or in the irrationality of his unclarified passions and sentiments. To be well informed means to him to arrive at <u>reasonably</u> founded opinions in fields which as he knows are at least mediately of concern to him although not bearing upon his purpose at hand.
>
> (Schutz, 1964h, pp.122-23).

On entry to the field, whilst I was familar with the general nature of hospital life, I was certainly a 'man in the street' when it came to the technical vocabulary and knowledge of clinical medicine. However, in the course of doing the research I found myself becoming a 'well informed citizen' on such matters. To some extent I cultivated some basic medical knowledge as a resource in doing the research. I did try to make a point of noting and, if necessary, looking up technical terms in medicine and surgery. This was a personal reward for the conduct of the research - a personal satisfaction gained in the acquisition of such knowledge. I also found it necessary to note some of the technical detail. For example, it might happen that there was disagreement over the diagnosis of a patient between the doctors who taught the students; or, in the course of time, the diagnosis would be changed. In following such developments, some attention to the technical detail of the doctors' and students' talk provided me with benchmarks in charting these shifts of definition and in the comparison of the divergent opinions. (Walker and Adelman, 1976) provide an illuminating account of how important it may be to take account of such shifts in members' definitions, and how the ethnographer may need to be able to ground his observations in the members' shared knowledge and its development over time). More generally, it is always difficult to follow prolonged discussions on topics which are mostly alien and poorly understood. Not only do the nuances and details of such talk get overlooked, but also major topics of discussion may otherwise pass over the observer's head. The topic of pharmacology was an area in which I found it particularly expedient to develop some acquaintance with specialist medical knowledge - primarily a grasp of the range of generic and proprietary names of drugs that were most commonly referred to. This did not mean that I

was tempted to become an expert in the various specialist subjects. In recording my notes, I was not concerned with evaluating whether the students were 'right' or 'wrong' in their replies to doctors' questions. Nor was I worried about whether what the doctors told their students was in accord with contemporary scientific orthodoxy. Thus I did not need to learn the precise metabolic action of the drugs and so attempt to become an expert on pharmacology and biochemistry (even if I had been capable of such a task). However, the ability to recognise thd make some clinical sense of the topics of teaching sessions did enable me to produce much more detailed and faithful field notes than would otherwise have been possible. It will be apparent throughout the thesis that my notes often contain a good deal of clinical terminology, and I have done my best to make its meaning clear.

What I am suggesting is that while there is no necessity for a fieldworker to become an 'expert' in medicine (or whatever), it may be advantageous to become something of a 'well informed citizen' in performing the research. In the context of my own research, the fact that I was observing educational occasions made the acquisition of such knowledge fairly straight-forward. There were many areas of clinical work which were novel to the students themselves, and had to be explained to them by the clinicians. In the course of such educational talk, things were made more explicit to the students, and spelled out in some detail; hence I often found that by following the content of tutorials or bedside teaching sessions that I also picked up the same basic clinical knowledge. (In this respect, educational situations may be more easy to follow than those involving only qualified and competent members of a group or occupation, when more

things might be taken for granted and passed over with no explanation).

This does not mean that I did not also use the ignorance of the layman as a research resource also. The fact that I was not medically qualified meant that I could repeatedly (and often disingenuously) please ignorance or a lack of understanding. Such appears to my status as a naive outsider permitted me to ask for clarification of points and accounts of activities which might otherwise have come oddly from an expert in the field. As Lofland points out, it is often expedient to act in such a way as to portray oneself as an 'ignorant-student-who-has-to-be-taught', and to make a virtue of one's ignorance. On the basis of such 'ignorance' one may legitimately ask the questions by which 'what everyone knows' must be made explicit by the members concerned (Lofland, 1971, pp. 100-101). As Lofland says, ' there may... be a split between being an acceptable incompetent and needing to be an insider expert'. I found it necessary to man age the contrasting impressions of both expertise and ignorance in the course of my fieldwork in the medical school.

A Note on Presentation.

In presenting the ethnographic material in the course of this thesis, two common conventions have been followed. First, I have presented verbatim extracts from my own field notes and interview notes or transcripts to illustrate and develop the argument. Secondly, I have used the 'ethnographic present' in describing the world of the students in the medical school. Both literary conventions tend to portray the experience of the students and of the researcher in a vivid present. This is consonant with the subject matter and the

method employed, which stress the nature of the students' day-to-day experiences of their own 'life world' (Schutz, 1967). But I do not wish to imply that I take a totally unhistoric view of the medical school; I do not seek to imply that life in the Edinburgh medical school is unchanging.

1.3 An Introduction to the Edinburgh Medical School, and the Work of the Fourth Year.

The Past

The foundation of the Faculty of Medicine in the University of Edinburgh dates from the first half of the eighteenth century, although doctors were trained in the city before that time. Some medical knowledge appears to have been a regular part of the undergraduate teaching in Scotland prior to the introduction of specifically medical training, and in the seventeenth century anatomy was a prescribed part of the Arts course (Bower, 1817). During the 16th century the barber-surgeons of Edinburgh were recognised under the 'Seal of Cause'(Comrie, 1932, p.239 ff.), and anatomical teaching was developed under the surgeons from that time. Similarly, the physicians of Edinburgh were involved in teaching during the seventeenth century, with particular emphasis upon botany and materia medica.

The eighteenth century developments in the University were largely inspired by contemporary innovations in medicine on the Continent, and especially by those which were taking place at the medical school of Leyden. At that time Leyden was the foremost centre of medical theory, practice and instruction. Foremost among the Leyden theorists and teachers was Boerhaave (Sigerist, 1933) and it was he who provided the major influence on the early days of the Edinburgh medical faculty. Several of the first doctors to be involved in the Edinburgh

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1. The following account of the rise of the Edinburgh medical school is largely derived from Comrie's definitive two-volume history of medicine in Scotland (Comrie, 1932).

faculty were themselves trained at Leyden, and the medical school was founded on the continental model (Newman, 1926).

The actual date of the foundation of the medical faculty is 1726, when four physicians who had trained in European medical centres were appointed by Edinburgh Town Council to teach various aspects of medicine - Rutherford, St. Clair, Plummer and Innes, who taught physiology, practice of medicine, chemistry and materia medica between them.

The contemporary approach to medical instruction, taken from European examples, had led quickly in Edinburgh to the opening of a hospital where medicine could be studied and practised. Funds were raised in the city and a small teaching hospital was opened in 1729. Clinical instruction in this small 'hired house' proved extremely popular, and the managers of the hospital were forced to charge a fee for 'walking the wards', and to draw up regulations for the conduct of such clinical instruction. A new and larger hospital was opened in 1741 and was designated the Royal Infirmary.

Rutherford was the first professor to deliver regular clinical lectures at Edinburgh. He outlined his own commitment to clinical instruction in this way:

> I shall examine every patient capable of appearing before you, that no circumstance may escape you, and proceed in the following manner. 1st, give you a history of the disease. 2ndly, enquire into the cause. 3rdly, give you my opinion how it will terminate. 4thly, lay down the indications of cure yt arise, and if any new Symptoms happen acquaint you them, so that you may see how I vary my prescriptions. And 5thly, point out the different

Method of Cure. If at any time you find me deceived in giving my Judgement, you'll be so good as to excuse me, for neither do I pretend to be, nor is the Art of Physic infallible, what you can in Justice expect from me is, some accurate observations and Remarks upon Diseases.

(Rutherford, MS notes, cited by Comrie, 1932, p.306)

In emphasizing his 'accurate observations', and in the general manner of approach to clinical instruction, Rutherford was echoing the general methods developed by Loerhaave - with its emphasis upon observation and inference, rather than speculative theorising (cf. Guthrie, 1945, pp.220-24).

As early at 1749, the Governors of the Royal Infirmary wrote that:

> A flourishing School of Medicine being already established in Edinburgh, the Governors of the Infirmary resolved to promote it as much as they could, and on this account allowed all Students of Medicine, on paying a very small Gratuity, which is part of the annual Revenue of the Infirmary, to attend this Hospital, to see the practice of the Physicians and Surgeons. They otherwise granted Liberty to the Professors of Medicine to give clinical Lectures on the Cases of the Patients, and they are making a collection of medical books, and or chirurgical Instruments for public use.
>
> (History and Statutes of the Royal Infirmary of Edinburgh, cited by Comrie, 1832, p.306).

A definite course of lectures in clinical medicine was instituted in 1756. Formal courses in clinical surgery followed somewhat later - in 1769.

The practice of bedside teaching in Edinburgh was based closely upon the Leyden model:

> The chief would go round the ward with his students and coming to a bed the chief would stand at the top of the bed and the student would stand by the patient. The Chief would ask the student a question, the student would then speak to the patient, the patient would reply to the student, the student would shout at the top of his voice the answer to the assembled students and the Chief could hear the answer.
>
> (Eastwood, 1972, p.14).

The Leyden tradition was preserved and enhanced at Edinburgh by William Cullen, another of Boarhaave's pupils. His own reputation as a clinician and teacher, and his ability as an expositor of Boerhaave's approach, made Edinburgh a pre-eminent centre of medical instruction; and attracted students from all parts of the English-speaking world. Other notable members of the Edinburgh medical school of the age were James Gregory and John Brown, who each contributed popular and influential systems of medical theorising.

In the eighteenth century, then, Edinburgh was the very model of the 'old clinic', as it is called by Foucault (1973). The practice and teaching of medicine were grounded in bedside observation and discourse, but its empiricism was oriented towards the formulation of systematic classifications of symptoms and diseases. Bedside teaching consisted of observation and conversation, but there is no mention made of any physical examination of the patient. No physical signs are referred to in text books of the period, with the exception of the appearance of the *facies*, the tongue, and the patient's pulse.

> The actual methods of teaching students were much the same in 1800 as they are today, with one great exception, the development of the technique of teaching due to that revolution in the technique of Medicine, the invention of the physical examination of the patient. This innovation demanded the introduction of methods of teaching the elicitation of physical signs, and the provision of those opportunities for practice and experience on which this interpretation and evaluation must be based.
>
> (Newman, 1957, p.30).

In other words, medicine in the early days of the Edinburgh medical school was a science of <u>symptoms</u>, with little or no discussion of physical signs, Newman comments.

> If one wants to understand what medical teaching was like, the best thing to imagine is a clinical session with one of those old and experienced general practitioners who never examines his patients, but who could demonstrate and explain how he arrives at his diagnosis and prescribes his treatment.
>
> (Newman, 1957, p.31).

In 1705 the M.D. was first awarded in Edinburgh University, members of the Royal College of Physicians acting as examiners. From 1726 to 1799, 1,143 men graduated M.D. Of these, 237 were Scots, 254 English, 8 Welsh, 280 Irish, 195 were from the West Indies and North America, 2 were from Brazil, 1 came from the East Indies, and 26 were Europeans; 140 graduates were listed simply as 'British'. By the end of the eighteenth century, 'Edinburgh had now succeeded Leyden as the leading medical school of the world' (Tait, 1966). The influence of Edinburgh was considerable. For example, the development of medical schools in North America was greatly

influenced by Edinburgh graduates - including the foundation of the medical school of Philadelphia in 1765 and that of New York in 1767.

The curriculum remained more or less unchanged until 1825. The candidate was required to have studied medicine at Edinburgh or other university for three years, taking the subjects of anatomy, surgery, chemistry, botany, materia medica, pharmacy, the theory and practice of physic and clinical lectures in the hospital. A preliminary test of the candidate's ability was carried out at the home of a professor, after which the student was required to submit a thesis, which was examined orally before the assembled faculty. On completion of this, the student was given two aphorisms of Hippocrates to comment on; the successful candidate was then given two cases to comment on - again, before the faculty. All proceedings were conducted in Latin.

The differences that occurred in the early nineteenth century - which transformed the 'old clinic' to the 'modern clinic' (cf. Foucault, 1973), again came from mainland Europe, primarily from France. Between 1800 and 1830 there occurred major innovations in medical theorising and education. These were occasioned by the development of clinical-pathological research, whereby it became possible to relate clinical observation at the bedside to localised lesions uncovered on the post-mortem table (Holloway, 1964; Waddington, 1973). At the same time there developed novel techniques which permitted the detailed physical examination of the patient - such as the invention of the stethoscope in 1819 - which also permitted the identification of localised pathology at the bedside.

Thus between 1800 and 1850, the major shift in emphasis in European medical schools lay in the move from a discursive medicine of symptoms towards an approach which included a concern for localised

pathology and clinical signs. In Britain, men such as Bright and Addison, in their identification of the diseases which bear their names, were working directly in this newly established tradition.

These development in nineteenth century medicine were reflected in the Edinburgh school, not least in the rise of its surgeons, a chair of surgery having been established in 1831. Charles Bell - he first to describe Bell's Palsy was the second incumbent of this chair. Amongst others, Robert Liston and James Syme continued to break new ground in surgery in Edinburgh. In mid-century, Simpson's work on anaesthesia and Lister's development of aseptic operating conditions developed Edinburgh surgery even further.

In 1825, the curriculum was reformed at Edinburgh, and the course was lengthened from three to four years. Practical anatomy, clinical surgery and medical jurisprudence were introduced as subjects. Midwifery was taught at Edinburgh from 1756, when Thomas Young was elected professor of medicine. But it was not until 1825 that the subject was made compulsory, although it had been almost universally attended on a voluntary basis before that time. At this time the course was set at four years of study; the new regulations required one year to be pursued in medical study in Edinburgh, and another year to be spent in the practice of any large hospital. The school of Edinburgh became famous for midwifery under James Simpson in the middle of the last century, and

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2. The provision of medical education at Edinburgh at this period, as at other Scottish Universities, made it a great training centre for general practitioners (despite the fact that they were known as physicians). About half the graduates were English and return to England; there they fell foul of the apothecaries, who were protected by the Apothecaries Act of 1815 (see Brotherston, 1971; Holloway, 1966).

this eminence was continued under his nephew, Alexander Simpson. Obstetrical and gynaecological work was developed at Edinburgh by J.W. Hallantyre, in his establishment of an ante-natal clinic in the Royal Maternity Hospital in 1915. The Edinburgh school was also early in the field of paediatric medicine, with the founding of the Hospital (now Royal Hospital) for Sick Children, in 1860, and John Thompson made Edinburgh a centre for paediatric medicine in the latter part of the nineteenth century. Psychiatric medicine was also introduced to the curriculum at Edinburgh towards the end of the century. The superintendant of the Royal Lunatic Asylum was appointed to lecture on Insanity in 1879. The position of the subject was further established by the foundation of a chair, endowed by the Managers of the Royal Asylum in 1919.

By the beginning of the present century, most of the subjects which are now a familiar part of the medical curriculum were being taught, with the addition of some that are no longer part of basic medical training: Chemistry; Botany; Physiology; Anatomy; Natural History; Natural Philosophy; Pathology; Pathological Bacteriology; Medicine; Surgery; Clinical Surgery; Midwifery; Materia Medica; Medical Jurisprudence; Public Health; Diseases of the Eye; Tropical Diseases; Insanity; Diseases of Children; Diseases of the Ear and Throat; Diseases of the Skin.

The Edinburgh medical school also played a somewhat reluctant part in one other innovation in medical education in Britain - the admission of women. In 1865, Elizabeth Garrett (later Garrett Anderson) qualified in medicine after a course of private instruction,

taking the licentiateship of the Apothecaries' Hall.[3] The regulations were then changed to prevent such training and qualification for women, by preventing students from receiving all or part of their medical training privately. Thereafter Edinburgh was one of the first centres where women made a determined effort to be admitted to full-time university training in medicine. The leading protagonist in the feminist search for medical education was Sophia Jex-Blake who came to Edinburgh in 1869 determined to study medicine. Opinion in the University and among the general public was divided, and while Sophia Jex-Blake received sympathetic support from many quarters, she also faced fierce opposition from some sectors of the student body, and also from among the staff of the medical faculty.

It was resolved that women should be instructed in medicine, but only in separate classes, and at the discretion of the professors in the faculty. Unfortunately, not all the professors were willing to arrange such additional classes, although seven women students did attend classes in a number of basic sciences. Amidst intrigue and student demonstrations against the feminists, the Royal Infirmary declined to grant access to the hospital for the female students. It was also apparent that the University would not be prepared to grant the women students the degree, even were they to attend all classes and take the examinations at the end of the course. Faced with prevarication and opposition, Sophia Jex-Blake went to Berne and took

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3. A detailed account of Elizabeth Garrett Anderson's life is provided by Manton, (1965). Details of Sophia Jex-Blake's assault on the Edinburgh medical school, and the final victory of women in their struggle to enter medicine can be found in Bell (1953) and Lutzker (1969).

her M.D. there. She returned to Edinburgh to practice medicine, where she took resident patients in what was to form the nucleus of the Edinburgh Hospital for Women and Children.

With the cooperation of the Royal Colleges of Physicians and Surgeons, a School of Medicine for women was founded in 1886: clinical teaching was provided in the Leith Hospital, and in the Royal Infirmary from 1892, as the administrators of that hospital reconsidered their earlier decision. The Universities (Scotland) Act, 1889, placed women on the same footing as men, and in 1894, the University of Edinburgh announced its intention of admitting women for graduation in the Faculty of Medicine. There were some remaining restrictions concerning separate classes for man and women, but by the end of the century men and women were being taught medicine on the same footing. This applied to all the Scottish Universities, the Irish Universities, Victoria University (Leeds, Liverpool and Manchester), the Universities of Durham and Birmingham and the Society of Apothecaries.[4]

Although Edinburgh would not admit Sophia Jex-Blake and her colleagues to the degree, the experience of the women there served as a catelyst for the feminist movement in medicine. Before returning to Edinburgh to practise, Sophia Jex-Blake, with Elizabeth Garrett Anderson and Isabel Thorne helped to found the London School of Medicine for Women, which in 1887 gained the right of conducting clinical instruction in the Royal Free Hospital. The feminist cause in Edinburgh

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4. It was not until the Report of the Goodenough Committee (1944) that it was recommended 'that the payment to any school of Exchequer Grants in aid of medical education should be conditional upon the school being co-educational and admitting a reasonable proportion of women students'. Thus all medical schools in Britain were forced to open their doors to both sexes (though not necessarily on a completely equal basis). (cf. Bell, 1953, pp.185-91.)

medicine was also taken up by Elsie Inglis, who was involved in the suffragist movement, and who established the Scottish Women's Hospital, building on the pioneering work of Sophia Jex-Blake. In 1916 Edinburgh University sent some of its women students there for obstetric instruction for the first time. In 1923 a new hospital was built as a memorial to Elsie Inglis. (Bell, 1953, pp.92 ff.).

An account, however brief, of medical teaching in Edinburgh must make mention of the fact that the University itself by no means accounted for all the medical training that took place in the city. As Grant comments:

> The history of the Medical School of the University of Edinburgh cannot be separated from the history of extra-academical Medicine as practised and taught in the City... surrounded (as it was) by extramural rivals, who have kept its Professors up to the mark, and sometimes eclipsed them....
>
> (Grant, 1884, I, pp.292-3).

The Royal Colleges of Physicians and Surgeons of Edinburgh conducted extra-mural medical education in the city from the end of the seventeenth century. In the middle of the nineteenth century, soon after the passing of the Medical Act of 1858, the Royal Colleges agreed to hold conjoint examinations, and their cooperation led to the foundation of an extramural school of medicine and surgery (Roberts, 1966). This extramural school continued until the post-war reforms in medical education, when the functions and facilities of the school were transferred to the University faculty of medicine, in 1948-50 (Guthrie, 1965).

The distinctive nature of medical education at Edinburgh

developed out of the close relationship between the University, the medical faculty and the teaching hospitals. Medical education maintained its academic component, with a balance preserved between bedside instruction, systematic teaching by lectures and practical work. This contrasts with the position in London, where far greater emphasis was placed upon practical work and an 'apprenticeship' approach (Ellis, 1966; Clark-Kennedy, 1966). These differences, which are still reflected in present teaching arrangements, can be traced back to the very early period of medical training in each city. Edinburgh had a university, but no hospital; London had hospitals but no university.

The Present.

Fieldwork in the Edinburgh Medical School was carried out between 1971 and 1973. At that time Edinburgh was a city of approximately 450,000 people, with a static population. As the capital of Scotland, Edinburgh has a population which is more middle-class in composition that is the case elsewhere in urban Scotland. Commerce, banking, insurance and administration account for a major sector of the work force in the city, as well as the University itself and other educational institutions (e.g. Moray House College of Education). The city itself is also a centre for tourism and enjoys a full (if somewhat seasonal) cultural life.

At the time of the study the University had approximately 10,000 students, studying in eight faculties - Divinity, Law, Medicine, Arts, Science, Music, Social Sciences and Veterinary Medicine. The medical school itself remains on the site established in the nineteenth century, on the south side of the centre of Edinburgh. True to the traditional links between the medical school, the hospital and the rest

of the University, the medical quadrangle, the Royal Infirmary are in close proximity to the main University sites of the 'Old College' quadrangle and the newer site at George Square, which houses the faculties of Arts and Social Sciences, as well as the University Library.

At present the Royal Infirmary of Edinburgh (R.I.E.) remains the main teaching hospital associated with the medical school. A number of other hospitals have also become affiliated with the University of Edinburgh as teaching hospitals, both in the city of Edinburgh and in the surrounding area. The main teaching hospitals in the sity are now as follows. The Royal Infirmary of Edinburgh (986 beds); the Western General Hospital (524 beds); The Eastern General Hospital (339 beds); the Leith Hospital (166 beds); and the Northern General Hospital (120 beds). Clinical departments also undertake teaching in the following hospitals in Edinburgh: The Royal Hospital for Sick Children; The City Hospital; The Princess Margaret Rose Orthopaedic Hospital; Elsie Inglis Hospital; The Deaconess Hospital. Hospitals outside Edinburgh include Bangour General Hospital, and The Victoria Hospital, Kirkcaldy, in Fife. The Royal Infirmary is thus the largest of all the teaching hospitals, and the Western General Hospital is regarded as the main complementary teaching hospital to the Infirmary (Duncan, n.d.).

Overall, Edinburgh and its surroundings provide a wide network for medical care and for the clinical instruction of medical students. Edinburgh's is the second largest medical school in the United Kingdom. At the time of the research the Faculty of Medicine, including the School of Dentistry, supported approximately 1,000 undergraduate students in full-time study - a number surpassed only by the University of Glasgow

medical school. There were also some 200 full-time postgraduate students. There were approximately 150 students in each cohort (except for the first year - see below), a number which the Royal Commission had recommended could be raised to 200 (para. 375, p.153).

Edinburgh medical school retains a reputation as one of the most highly regarded in Britain, and indeed in the world. Unsuccessful applicants outnumber the successful entrants many times over each year, and the entrance qualifications required are very high. Some indication of its popularity can be given by reference to the high proportion of students at Edinburgh for whom it had been a first choice, when surveyed in connection with the Royal Commission - 88.5 per cent, although this was not the highest proportion for all British medical schools (Royal Commission on Medical Education, 1968, p.395). The medical school enjoys a high academic reputation - something that is reflected in the figures given by the Royal Commission (p.273) of students passing their final examination at the first attempt. The figures for Edinburgh in 1964/65 (the latest date for which the figures were available) show 95 per cent of Edinburgh students to have succeeded at the first attempt; this is the highest proportion for any medical school.

Despite the historical links and geographical proximity of the medical school and the rest of the University, the faculty of medicine is in many ways a self-contained institution. For instance, in addition to the University-wide Students' Representative Council, there is also a separate Medical Students' Council. The Edinburgh University Student Publications Board (who produce the student newspaper, called the Student) also publish a separate magazine for the medical school - Synapse. Many of the students appear to have few social contacts or

activities that take them beyond the circle of their fellow medical students. As is apparent in the following discussion of the students' timetable, their time is very full; the students' perspectives are therefore somewhat limited. Whilst the medical faculty is not a 'total institution' (Goffman, 1961), nevertheless it does define a great proportion of the students' time and interest. The students tend to see themselves a rather set-apart from the rest of the students in the University, though some do make strenuous efforts to engage in activities and enter social relationships beyond the medical school. As the student career develops, they become more and more involved in the work of medicine, and it comes increasingly to dominate the students' field of experience. By the time that they reach their final year in the medical school, the students are in a position which is very similar to that of a junior member of the ward staff, and the world of medicine is very much their own 'life world' (Schutz, 1967).

The Students

The students are drawn from a predominantly middle-class backgroumd. The parental occupation of Edinburgh students is approximately as follows: 'Professional' 34 per cent; 'Managerial and Business' 40 per cent; 'Routine White Collar' 10 per cent; 'Skilled Manual' 12 per cent; 'Unskilled Manual' 2 per cent (Sheldrake, n.d.). Of these approximately 20 per cent came from a medical family. This classification of parental occupations is not directly comparable to the Registrar General's categorization, but Sheldrake's figures suggest a pattern broadly similar to that described for Scotland by the Royal Commission on Medical Education (1968, pp.331-32). Considering Britain as a whole the authors note that 'medicine draws extensively from children of fathers in Social Classes 1 and 2 and the proportion has

increased'. These figures suggest that the Scottish and the 'provincial' medical schools recruit more from Classes 3 and 4 than do those in London, or Oxford and Cambridge. The differences, however, are small, and the Scottish figures are heavily skewed towards the upper social strata. The Scottish figures for entrants to medical school in 1966 are: 33 per cent from Class 1; 34.5 per cent from Class 2; 28.1 per cent from Class 3; 3.3 per cent from Classes 4 and 5; 1.1 per cent from the Armed Forces (Royal Commission on Medical Education, 1968, p.332). The Royal Commission figures also show that in Scotland 17.7 per cent of the 1966 entrants had medical fathers. This figure was lower than the corresponding proportion at London, Oxford or Cambridge, though it represents a higher degree of self-recruitment than is the case in 'provincial' medical schools. In all types of British medical schools, however, self-recruitment from within theprofession accounts for a large proportion of the students (cf. Simpson, 1972, pp.34-36).

Although the efforts of Sophia Jex-Blake at Edinburgh went a long way towards ensuring access to medical education for women, they did not ensure complete equality for women. This has been reflected in the relative proportions of men and women admitted to medical schools. The number of women students admitted to medical schools in Britain varies quite markedly. At a period just before the beginning of my research, the survey of medical schools undertaken for the Royal Commission showed that the school admitting the lowest proportion of female students had 13.9 per cent, while the school admitting the highest proportion had 48.9 per cent of its intake female. (This last figure refers to the Royal Free Hospital, which was founded as a medical school for women. Disregarding the Royal Free, the highest proportion of female students was 39.2 per cent).

It is clear that the differences in proportions of female students in the various medical schools were consistent, and at least in part a reflection of policy decisions on the part of the schools concerned. The Royal Commission noted, 'Medical schools are widely believed to apply more stringent selection criteria to women than to men and often to judge women applicants irrationally, with the result that outstanding women candidates are sometimes rejected' (para. 301, p.122). These beliefs were supported by Johnson (1971), who showed in an analysis of successful and unsuccessful applicants to medical schools that female students were at something of a disadvantage. The figures quoted in the Royal Commission on Medical Education (Appendix 9, p.274) show Edinburgh, along with the other Scottish medical schools, to have been towards the 'liberal' end of the spectrum from this point of view, with 27.3 per cent of the 1968-8 intake female. The cohorts of students reported in this study had much the same composition, with between 25 and 30 per cent of the students female. Writing a few years before this period, Perry (1966), in his analysis of selection and success in the Edinburgh medical school mentioned a quota restriction of about 20 per cent on female entrants, and the figure had been rising slowly with successive cohorts.

The rationale at that time for admitting lower proportions of female applicants was usually the lower 'productivity' of female doctors overall, a higher wastage of female doctors. (cf. Royal Commission on Medical Education, 1969, paras. 353-356, pp.142-4, and Appendix 13, p.290, Tables 3 and 4). Since the completion of the fieldwork, the Deans of medical schools and Vice Chancellors have given undertakings that there will be discrimination against female applicants in the

selection of medical students - an undertaking which should find statutory confirmation in the recently passed Sex Discrimination Act.

The Staff

The medical staff are organised into thirty separate departments. The complete list of staff-names occupies some twenty pages of the relevant section of the University Calendar, and presents the medical student with a bewilderingly large number of staff members, most of whom display an impressive array of degrees and other qualifications.

At the time of the fieldwork, there were 349 members of the University staff in the medical faculty, including those who held part-time appointments. (This number includes members of preclinical and clinical departments). In all, there were some 440 Clinical Teaching Staff, at Consultant or Senior Registrar grade, attached to the thirteen teaching hospitals; some members of this category held appointments at more than one hospital. (This figures includes members of teaching staff responsible for laboratory services, such as Bacteriology, Haematology, Pathology and so on).

They are basically three types of staff. Firstly, there are members of preclinical departments. They are employed and paid in the same way as any other members of the University staff. On the other hand, there are clinical staff, who enjoy higher levels of remuneration than their preclinical colleagues (a fact that has not fostered ideal levels of cooperation between the two segments at Edinburgh or elsewhere). The clinical staff are themselves of two types - those employed primarily as National Health doctors, and those who are employed by the University. At one time there was a

fairly sharp distinction between the two categories of clinical staff - between the full-time academic and the part-time consultant, who often had a very lucrative private practice. To some extent the distinctions remain, but they are becoming rather more blurred. In the five years or so prior to my fieldwork, thirty-four N.H.S. consultants had been employed at Edinburgh with teaching sessions as part of their contractual agreement, and posts as part-time senior lecturers in the University. Consultants who were employed before this type of appointment were designated 'Members of the Clinical Teaching Staff' and did not enjoy the University Appointment. Professors and senior lecturers in University departments of clinical subjects held posts as consultants in the teaching hospitals. The grades of senior registrar and University lecturer were similarly linked.

Since this thesis will be concerned primarily with the teaching of Medicine and Surgery, it may suffice to give some indication of the relative proportions of the staff involved in the different types of post.

The clinical teaching staff in Medicine were distributed as follows: 4 Professors; 4 Readers; 2 Part-time Readers; 7 Senior Lecturers; 19 Part-time Senior Lecturers; 3 Lecturers; 10 'Clinical Teaching Staff'. Similarly, of theteachers of Surgery, the numbers were: 2 Professors; 1 Reader; 4 Senior Lecturers; 4 Part-time Senior Lecturers; 2 Lecturers; 11 'Clinical Teaching Staff'.

Of the University staff members, 24 were women - comprising one Part-time Professor, two Senior Lecturers, 17 Lecturers, 3 Part-time Lecturers and 1 Demonstrator. Among the clinical staff responsible for teaching (including University staff), there were 23 women:

13 Consultants and 10 Medical Assistants or Senior Registrars. Female clinicians were most often found in the Elsie Inglis Hospital (4 Consultants), and the Royal Hospital for Sick Children (3 Consultants and 3 at more junior grades), as well as the Royal Infirmary, where there were 5 female consultants as well as 3 other clinicians. (Once more it must be emphasised that these figures refer to teaching staff at or above senior registrar level.)

The Undergraduate curriculum

The undergraduate curriculum at Edinburgh follows the traditional British pattern in dividing the course into two major segments - the 'preclinical' and 'clinical' periods, each of which consists of three years. During the first year of the course, students read the three basic sciences of Biology, Chemistry and Physics. The First Professional Examination is taken in these subjects at the end of the year in all three subjects. In the second year the subjects of study are Anatomy, General Biochemistry and Physiology. The Second Professional Examination is taken at the end of the second year in Anatomy and General Biochemistry. The third year curriculum consists of the Pathological Sciences (aspects of Pathology, Bacteriology and Pharmacology), the Physiological Sciences (aspects of Physiology, Anatomy and Biochemistry) and the Behavioural Sciences (Sociology and Psychology). The Third Professional Examination is taken in Pathological and Physiological Sciences at the end of the third year.

In the fourth year of the course, the students begin their clinical work. They receive instruction in Clinical Medicine and Clinical Surgery, as well as continuing to work in Pathology and

Bacteriology. Classes and practicals in these latter subjects go on throughout the fourth year. There is also an inter-disciplinary course of lectures on "The Nature of Disease", to which members of various clinical and non-clinical departments contribute. The fourth year of the course is also referred to as the 'First Phase' of clinical studies, at the end of which students take their Professional Examinations in Bacteriology and Pathology.

The 'Second Phase' of the clinical segment of the course spans the first two terms of the fifth year. During this time a number of clinical specialities are taught. In one term students are taught in Chid Life and Health, Obstetrics and Gynaecology, Social Medicine and General Practice.[5] In the other term of this phase, students are taught in Anaesthetics, Clinical Chemistry, Dermatology, Otolaryngology, Psychiatry and Veneral Diseases. The year group is divided in half, and the two groups take it in turns to do each term's course. During this time students are examined in Psychiatry and Social Medicine as part of the Final Professional Examination.

The 'Final Phase' of the clinical curriculum extends from April of the fifth year to the end of the sixth year; by this time the students no longer work in conventional university 'terms', but work throughout the year, with short breaks. The 'Final Phase' involves full-time attachment to wards in a number of hospitals in

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5. This is another of the areas in which Edinburgh has been in the forefront of innovation in medical education - in the establishment of an academic teaching unit, and subsequently a University Chair in General Practice - the first of its kind in the United Kingdom (Royal Commission on Medical Education (1968) Appendix 9, p.277: see also Scott, (1956)).

the Edinburgh region. The formal requirements are as follows:

16 weeks	General Medicine
8 weeks each	Elective Period; General Surgery
4 weeks each	Child Life and Health; Obstetrics and Gynaecology; Orthopaedic Surgery; Psychiatry and Surgical Neurology.

The last term of the Final Phase is left free of formal teaching in the hospitals, and consists of revision classes (which are optional) so that the students can prepare for their final examinations. This final examination is in: Child Life and Health; Clinical Pathology; Medicine and Therapeutics; Obstetrics and Gynaecology; Survery. The 'elective' period of eight weeks may be spent in clinical units, or in clinical or non-clinical laboratories. It may - subject to the permission of a student's Director of Studies - be spent away from Edinburgh.

Not all students take the first year of the preclinical course as I have outlined it above. There is a three-stage entry to the Edinburgh medical school: students can enter in the first, second or fourth years.

Students may gain exemption from the first-year subjects by the position of sufficiently high entrance qualifications in those scientific subjects. The position is outlined in the relevant section of the University Calendar:

> An applicant for admission to the University who wishes to be accepted as an intending candidate for the degrees of M.B., Ch.B. may apply for exemption from attendance and examination in respect of any one or more of the initial courses of instruction of the First Professional

> Examination.... Such applications will be considered by the Dean and Directors of Studies concerned in accordance with the minimum requirements for applicants as determined by the Senatus.
>
> The normal requirement for consideration for exemption from any initial course/courses for the First Professional Examination shall be a pass in any one or more relevant in the GCE (or comparable) Examination at Advanced Level at B grade (or equivalent); or a pass in the SCE Examination at Higher Level at A grade in Physics I and II; or a pass in any one or more subjects of the First Professional Examination as an external student. Where exemption from any part of an initial degree course is granted, substitution by an optional course with the approval of the Director of Studies is obligatory.
>
> (University of Edinburgh Calendar, Medicine Programme 1970/71, p.288)

In most British medical schools the overwhelming majority of students begin their course in the 'second year' of such a curriculum. Of these schools, the Royal Commission on Medical Education comments, on the first year that 'the class size is often ridiculously small' (para. 311, p.125). However, the 'Scottish first year' usually includes a sizeable group of students. In essence the difference between England and Wales on the one hand and Scotland on the other, derives from the differences in pre-university schooling. Traditionally, the Scottish secondary school pupil has taken the Scottish Certificate of Education 'Highers' rather than G.C.E. 'A' Levels. A wider range of subjects is taken at 'Highers', and at a correspondingly lower level. Hence Scottish students have not traditionally had training in the basic sciences to a level high enough to exempt them from the 1st M.B.

Whilst some entrants to the medical school have total exemption from the first year's basic sciences, others may be exempt from just one or two of them. Such entrants may then choose from a wide range of optional courses - from computing science, to moral philosophy or 'sociology and psychology in relation to medicine' (a popular option).

A third mode of entry to the medical school concerns students who read their preclinical sciences at other universities and move to Edinburgh for the clinical phase of their studies. Such mid-course transfer is a routine part of British medical education. Several universities have provided a preclinical course without the facilities for complete clinical training - and students have therefore moved to other medical schools for the second part of their undergraduate course. (Oxford and Cambridge have sent many students elsewhere for their clinical training, as has St. Andrews; cf. Royal Commission on Medical Education,para.377, p.154). This arrangement is one factor that has encouraged the preservation of a rigid division between the preclinical and clinical phases. Individual students can take advantage of the general pattern of training to move from one medical school to another.

A small number of students can also enter the medical school in other ways. Some begin by reading for a science degree and are then able to negotiate a change of faculty. Some students also enter the faculty to read for dentistry and then switch to medicine. Some students at least see dentistry as a 'second best' to medicine, and then grasp the opportunity of changing course if they are particularly successful in the common first-year course.

Of the students who were surveyed in the course of the research, 32 (29 per cent) had been first-year entrants with no exemptions; 32 (29 per cent) had been first-year entrants with exemptions in one or more subjects, 41 (37 per cent) were direct entrants to the second year, and 7 (6 per cent) had entered the fourth year by some other route.

After the third year it is possible for students to intercalate a year in one of the following subjects: Anatomy, Bacteriology, Biochemistry, Pathology, Pharmacology or Physiology. On the successful completion of a year's study in one of these 'honours schools', the student is awarded the degree of an Honours B.Sc. (Med. Sci.). This optional course is referred to as an 'honours year', and is discussed in more detail in the context of 'the transition to clinical years' presented below.

As is noted by the Royal Commission on Medical Education (para.204, p.89), 'clinical students at Scottish medical schools tend to spend a great part of their vacations in acquiring clinical experience in hospitals'. Such a vacation period of hospital experience is a compulsory part of the Edinburgh course, and is undertaken at the end of the First Phase of the clinical course. This period of hospital - based experience is referred to as a 'clerkship', and students travel far and wide for this period of work - to Africa, North America, the Indian subcontinent, as well as all parts of Europe and Britain. These are normally periods in which students begin to gain more practical experience in clinical work - in which they can begin to apply the knowledge which they have started to accumulate in the medical school. Obviously, the

precise arrangements for these summer clerkships differ widely - from the small rural hospital in a developing country, to the large American teaching hospital, the students' duties, the amount of supervision, the sort of patients treated and so on the range of diversity is great.

The curriculum as I have outlined it displays features of contemporary medical education that are recurrent topics of debate and heart-searching among teachers, administrators and students of medical schools. First, it is long. The minimum time in which the undergraduate course can be completed is five years. Students without complete first-year exemption must take at least six years over the course. In itself this is a source of dissatisfaction among the student body - as expressed in a paper produced by a committee of the students' own Medical Students' Council:

> The first year is seen as wasted by most of the students who take it. The English students who have done science at school but not obtained sufficient grades to enter Edinburgh, feel that they waste their time on subjects that appear irrelevant, especially when the 1st M.B. Ch.B. standard is nowhere near the required entry standard into second year. Scottish students feel irate that they cannot go into second year without 'A' levels and express similar frustrations. The optional courses are the only saving grace of this year.
>
> (M.S.C. Committee, 1971, p.19).

The 'honours year' make for the possibility of yet another year of study prior to graduation. Of course, even after graduation the students will also have to complete a further year in approved training posts before they can be registered by the General Medical Council for professional practice.

The medical student therefore faces an extremely protracted status passage, or series of status passages in the process of becoming a doctor. Given the ever-increasing detail of medical knowledge, it becomes less and less feasible for the undergraduate course alone to equip the student for independent practice as a fully informed practitioner, either as a hospital doctor or as a general practitioner. To an increasing extent the undergraduate course is seen as a preparatory grounding in medicine, to be supplemented and built on in courses of postgraduate study and 'vocational training' programmes in the various branches of medicine (Royal Commission on Medical Education, 1968; Committee of Inquiry into the Regulation of the Medical Profession, 1975).

But whilst the undergraduate curriculum is no longer designed to produce a complete medical practitioner, it is nevertheless densely packed with subject-matter. The members of the Royal Commission saw no chance of reducing the weight of subjects and the time taken; if anything they envisaged an increase:

> Practically all our witnesses have accepted that in the preclinical stage the student should have a reasonable grounding not only in the traditional medical sciences, but also in a variety of other subjects whose importance has been recognised in more recent times, particularly psychology and sociology, statistics and genetics.... Even if advantage were taken of all possible opportunities of rationalising the teaching of preclinical and paraclinical subjects, however, we cannot see how a medical school could in two years provide instruction in all the subjects now recognised as necessary, let alone present them in such a way that the student really obtained a proper grounding in, and

> appreciation of, the scientific basis of medicine. A lengthening of the preclinical and paraclinical aspects of his education appear to be inevitable.
>
> (Royal Commission on Medical Education, 1968, para. 205, p.89).

The students at Edinburgh echoed such a sentiment in their own report on the state of the curriculum, with particular reference to the last year of their preclinical studies. Not only did they find the course overburdened with content, but also that the constituent subjects of the course were poorly related to each other and to the students' future needs:

> The third year course is very overcrowded and even when hours have been reduced teaching material has not been so commensurately. There is poor integration still despite the heroic efforts made. Horizontal integration is better so that lecturers in one department seem aware of what lecturers in other departments have been teaching. Vertical integration, i.e. relating a course to the later clinical curriculum, is still felt to be virtually absent.
>
> (M.S.C. Committee, 1971, p.19).

The Royal Commission recognise that the clinical curriculum is also 'indigestible' - and the Edinburgh students echoed this in their report - with particular reference to the Second Phase of clinical work:

> The two terms fifth year is the worse feature of the curriculum - a veritable dustbin! Teachers have the problem of repetition and the students the task of tackling twelve subjects in twenty weeks.
>
> (M.S.C. Committee, 1971, p.19).

The time table for all the clinical years is densely packed, however.

The Transition to the Clinical Years : Non-Clinical and Clinical Work

The completion of the '2nd MB' examination heralds a major 'status passage' for the undergraduate student. (cf. Van Gennep, 1960; Glaser and Strauss, 1969). For most of the students it marks the transition from 'preclinical' to 'clinical' studies. Certainly in medical schools which preserve this separation in their undergraduate curriculum (as opposed to the more 'integrated' approaches adopted by some newer medical schools) it is one of the major 'benchmarks' in the development of their student careers (Roth, 1963).

The student arriving at this transition-point in the Edinburgh medical school is faced with a number of decisions. The following sections deal with the nature of these decisions and the students' individual and collective solutions to their various dilemmas. For students who enter the medical school with partial exemptions from the '1st MB' there is a range of optional courses in the first year; but in the second and third years the students progress en masse through a uniform series of classes. After the completion of the third year the students' career paths diverge; the organization they face in the medical school becomes much more complex and diversified. The range of possible experiences opens up and students are called upon to exercise choice in constructing their own courses and student careers.

The first option which confronts at least some students is the postponement of their entry to clinical studies and intercalate an 'honours' year in one of the preclinical sciences. As the Introduction to the Faculty of Medicine states:

> At the end of the third year of study or later students may decide, subject to their performance

being satisfactory, to proceed to the Honours B.Sc. (Med. Sci.) degree. Such students spend the whole of one additional year studying in the department of their choice. There are six honours schools namely Anatomy, Biochemistry, Physiology, Pharmacology, Bacteriology and Pathology.

There is therefore a process of student choice and faculty selection - based principally upon student performance in the examinations. Students with marks above average are offered the chance to take an honours year.

Few students actually take up this option, and there are not many who would like to but are not offered the chance. The questionnaire administered at the end of the first year of the study showed that fifteen students (14 per cent) completing it had done an additional course, a further seven (6 per cent) reported they would have liked the chance to do one, but were not given the option. Against this twenty-one students said they had been offered an Honours year but declined it. The remaining sixty-one per cent of respondents said they neither wanted to do the course, nor had they been offered the chance. In other words one fifth of the respondents saw an honours year as an attractive possibility, while the majority were not interested.

In some ways, then, the decision to take an honours year rather than passing straight on into the clinical phases of the curriculum is something of a 'deviant' one. The 'year out' spent in taking the honours course represents a 'side-track' in students' careers. The decision to take such a course, or to avoid it, illuminates some aspects of undergraduate careers and perspectives.

The questionnaire asked students who had taken an honours year or who wished to do so to rate the relative importance of a number of possible reasons for such a choice. The statements the students were presented with were all based upon informal conversations with and interviews with students in the course of the year. They were asked to rate the statements on a seven point scale from 1 'very important' to 7 ' of no importance'. The statements, in rank order of their mean rating for importance are shown in Table 1.1.

TABLE 1.1 : Students' ratings of the importance of reasons for taking an honours year, or wishing to do so.

	Mean Ratings	Standard Deviations
1. 'A desire to gain some experience of scientific research'	2.4	1.7
2. 'A wish to deepen your knowledge of one particular subject'	2.8	1.3
3. 'The usefulness of your honours subject for your final career'	3.3	1,8
4. 'An honours year enhances your career prospects generally'	3.9	1.8
5. 'A wish to pursue a career in that subject'	5.0	1.8
6. 'A lack of confidence about entering clinical work'	5.7	2.0

In all cases, N = 21

The standard deviations show that the students were far from unanimous in ranking the reasons for taking honours. The mean ratings do suggest, however, that the students in this category were motivated primarily by an interest in at least one of the preclinical sciences sufficient to lead them towards a lengthy period of additional study.

Such 'scientific interest' is, on the whole, rated as weighing more heavily than the more utilitarian concerns of future careers and the relevance of specific subjects for occupational choice in the field of medicine. However, it would appear that the 'scientific' orientation and career preferences are indeed linked : of the students who stated a career preference for medical research all had opted for an honours year (N = 5). In terms of immediate perspectives on the preclinical subjects and future career aspirations the 'honours' students are 'deviant' in comparison with their peers. They serve to throw into relief the outlook of the majority of students in their class.

In the questionnaire a similar procedure was used with students who had not wished to do an honours year. They too were given a number of statements and asked to rate their relative importance in their attitude towards reading an honours subject. The students' responses are detailed in Table 1.2.

Table 1.2 : Students' ratings of the importance of reasons for not wishing to do an honours year.

	Mean Ratings	Standard Deviations
1. 'A desire to get on with clinical medicine'.	2.0	1.4
2. 'A wish to keep your undergraduate course as short as possible'	2.8	1.8
3. 'Dislike of purely academic nature of preclinical subjects'	3.3	2.1
4. 'Irrelevance of honours subjects to your eventual career'	3.8	2.1
5. 'Lack of sufficient interest in any of the subjects'	4.3	2.1

In all cases, N = 89

The students' responses show that they are not concerned either with the intrinsic interest of the preclinical sciences, or with careers and specialities. Rather, the most important considerations for students contemplating an honours year and rejecting it are a desire to press on with the clinical phases, and to minimise the time spent completing undergraduate training.

The length of the curriculum is a major preoccupation of both medical students and their teachers. That is, it has been of concern to those involved in the discussion and planning of curriculum development and reform in Britain and elsewhere (see, for example, Royal Commission on Medical Education, 1968, p.89). Those responsible for policy making in medicine have begun to question whether the time taken for basic training is too long. The purpose of this basic training is no longer seen as the production of a safe practitioner, but rather as providing a general, introductory foundation on which specialist, vocational training can be built in an area of medical practice, (including general practice) as the Royal Commission, and the Merrison Report, have suggested. As Ellis (1975), puts it:

> Now that at long last we tremble on the brink of accepting that it is as at least as difficult to prepare a generalist as a specialist, if not more so, and that both require post basic training under supervision, it is possible to consider whether or not the duration of basic medical education should or could be changed, if and when post-basic training becomes mandatory for all.

Such considerations did not apply to the Edinburgh students at the time of my study who were still faced by a lengthy period of

training. The shortest time in which they could complete their undergraduate course was five years, with the mandatory pre-registration year to follow. For those who entered the medical school without full exemption from the basic sciences the initial period of training was stretched to six years. For many of the students, whether first or second year entrants, the prospect of adding yet another twelve months in an honours school was a daunting one - and made the additional course appear unattractive. This perspective can be illustrated by the following comments taken from informal conversations and interviews.

> I didn't want to prolong it... But I would have done Bacteriology if anything ...
>
> (female - offered honours Bacteriology)

> I'd have taken it if I's been a chap. But I wanted to get through as quickly as possi-le.
>
> (female - offered Pathology and Bacteriology)

> My name was on the list, but I didn't want to do an honours year. I'm older than the rest and I'm in a hurry.
>
> (male, aged 26 - offered Bacteriology)

Although the temporal aspect of training is an important consideration, students did also take the nature of the 'honours' subjects and the competing clinical studies into consideration. They would distinguish between the 'scientific' or 'academic' nature of the preclinical sciences and the 'practicality' of work in the clinical context - which was seen as the application of the preclinical sciences in 'real' situations :

> I'm not all that interested in the pure science aspect... Its not really useful to me. If anything, I'd have done Bacteriology, but its a bit late for that now.
>
> (male)

> I'm not a scientist... and I wouldn't enjoy research at all. After so long doing science, three years is enough ...
>
> (female)

> I want to be a doctor, not a research type - and that's the only reason to do honours, is if you want the option of research left open. My main interest is medicine, not sciences...
>
> (male)

To some extent the 'science'/ 'medicine' distinction is linked to perceptions of future careers. My fieldnotes record a conversation with two students:

> Neither of them had taken an honours year. They said that an honours year was a good thing if you had a clear idea of what you wanted to do, in which case you could plan the best possible training. If, like them, your plans were not clear, then an honours year was not such a useful proposition: you might find yourself in five years time interested in something for which the honours course was of little relevance.
>
> At one stage I thought I would have liked to do an honours year, but then after considering it... its a fairly long course anyway and I wanted to practice medicine as opposed to a speciality. I think it would be of more academic interest doing that. I wasn't particularly bothered that I wasn't offered one.

For the majority of the students the preclinical segment of the course, be it two or three years, is seen as something of a 'chore' to be endured and got through. The clinical phase is seen by students as heralding more 'exciting' and rewarding work - 'real' medicine. The

students' retrospective views of their preclinical study display this attitude.

e.g. Simon Cameron told me that he did not take an honours year, although he was offered one in Anatomy and one in Physiology. He gave as his reasons for turning down the offers the fact that he 'couldn't face academic work', and he 'just did the bare minimum to get by'.

Jim Murray did not do an honours year. I asked if he had been offered one and he said he hadn't bothered even to look at the lists, as he was eager to get on - 'the course is long enough as it is'. He also told me that he was not sufficiently interested in the preclinical subjects.

Nicholas Payne did not do an honours year: he had already had to repeat a year and was 'pretty fed up' with preclinical sciences.

The authors of the Royal Commission on Medical Education note that the division into preclinical and clinical curricula can induce malaise among the students during the first years of the course as well as being a source of dissatisfaction to members of the teaching staff of medical schools:

> The two stages are often thought to be too sharply divided and from the students' viewpoint the division is exaggerated by the Second Professional Examination ... Clinicians argue that not enough weight is given to clinical aspects of the medical sciences, while teachers of the preclinical subjects claim with equal force that their task is to give a solid grounding in science, leaving its clinical application until later. Many students allege that the preclinical subjects as taught to them appear to have so little relevance to practical medicine that they find the early part of their course discouraging and their interest is aroused only when they reach the clinical stage.
>
> (Royal Commission on Medical Education, 1968, p.87).

Certainly the students at Edinburgh expressed such feelings about the transition to the clinical years. They reported a qualitative difference in the work -that they had encountered.

> This year, the actual stuff isn't easier, but its more interesting and its easier to remember. When you see a patient with the disease process its easier to remember; also its easier to learn when you're taught in small groups...

'Interest in the work of the clinical years is a major factor in students' view of their work on the wards. One of the female students went so far as to say that now she was 'looking forward to Monday Mornings' - something that had not been true during the earlier part of the course. For her, things had been getting better: the second year was 'shocking', the third year 'better' and as for the fourth year, she was 'enjoying it':

> Much more interesting than preclinical... There's much less awful swotting. Because it's interesting I think you pick it up more easily.

For the students, the 'interest' lay primarily in the perceived 'reality' and 'relevance' of the clinical work as opposed to the 'academic' nature of the preclinical study. Dealing with patients is seen not only as inherently more interesting, absorbing, but it also helps to put into perspective the material that has been (or should have been) already assimilated. This is attributed to:

> The fact that you talk to patients, have actual contact with them, and the fact that you can see why you studied the stuff in the other three years makes it all worthwhile.

> It's nice to have some contact with patients ... You learn more by application this year than by rote, like we did last year...

Indeed, students explained that sometimes they only really learned or understood some aspect of the preclinical syllabus when they began to encounter it in its clinical context. Anatomy and Physiology particularly came into their own during the basic clinical training of the fourth year.

The comparison between the preclinical phase and the first clinical year suggest something of a paradox in the students' levels of effort. The second and third year courses are seen as very gruelling and present the students with a vast range of information to be covered. The preparation for the '2nd M.B.' is looked back on by the students as a time of considerable emotional stress and effort. In comparison, their introduction to clinical practice seems very easy and relaxed, requiring much less effort. As one girl told me, 'The third year was terrible ... this year is much easier'. One of the men went as far as to describe his experience as 'Overall a pathetically easy and very relaxing year'. Or as one of the women said, 'You can go at a slower pace'. Thus the students find themselves worked heavily on matters which they do not necessarily find relevant to their future careers, or absorbing, whilst they appear to re-learn much of it in the clinical years, when they feel themselves less heavily committed. Ellis notes this dilemma:

> For all the talk of an over-crowded curriculum there is evidence to suggest that while for part of it the student is on a tread-mill and has difficulty in keeping pace with all he had to learn, for much of it his existence is somewhat desultory ... the long clinical course all too easily lacks any sense of urgency ...
>
> (Ellis, 1975).

For the most part, then, students feel that on entering the first clinical year, the 'pressure' has been taken off them. 'There's just as much work to do', said one woman, 'but people are not doing it, because they're not forced to do it'. They welcome the move into clinical study as a shift towards the 'real' work of medicine away from the 'academic', 'theoretical' and 'scientific' aspects. Apart from brief periods of vacation work in hospitals, (see Atkinson, 1976), the transfer marks the students' first sustained contact with practising doctors and their patients in the milieu of 'real' medical work.

The majority of students do not envisage entering non-clinical medical work, such as research or social medicine and public health. They see their eventual career involving direct contact with patients, either on hospital wards and clinics, or in general practice. Many do not have a precise career in mind, but they are committed to a future in 'clinical' work of some kind.

The very distinction in the formal curriculum between 'preclinical' and 'clinical' studies serves to perpetuate and strengthen such a view. The idea that the early parts of the course are more preparation for more important work which follows is enhanced. Training appears to follow a simple logic - from 'pure theory' (basic sciences) to pure 'practical experience' (employment in the pre-registration year). The first clinical year therefore gives the impression of a significant move in the sequence from theory to practice.

Clinicians themselves tend to reinforce this perception amongst students once they embark on their clinical work. They stress a qualitative difference between the two phases. For instance, during the first week of my fieldwork one of the younger consultants on the

unit I was observing told the clinique ' You are in the delicate position of forgetting your Physiology and learning Medicine'. Similarly I noted during the same week :

> The students from the various cliniques - about thirty of them - were taken for a demonstration of X-ray techniques.... They all sat round and were invited to comment on a number of X-ray pictures that were put up at the front of the class, and to compare them with a normal film that was also displayed. One girl made a suggestion that was, I gathered, way off target. Dr. Mason (one of the consultant physicians) commented to the radiologist who was giving the lecture 'they're allowed to say anything, you know; they don't know any medicine yet'.

Just as the students find they need to re-learn their pre-clinical subjects in the context of bedside work, so the clinicians emphasise this to the students. In medicine, anatomy is frequently re-learned - with patients as rather than cadavers as models. For instance, I noticed that neurology was often described as little more than an applied knowledge of the underlying anatomy by the physicians (with implicit or explicit criticism of the students' knowledge of neuroanatomy). Similarly the surgeons would often find themselves rehearsing basic anatomy (e.g. of the cardiovascular system) as the bedside or in the teaching room, while looking at X-ray films, discussing the operative findings in a particular case and so on.

As I discuss in more detail in Part IV, the clinicians would lay stress on notions of 'experience' gained in the course of clinical practise and contrast it with both the theories of text-books and the

teachings of both preclinical and paraclinical sciences. One example of this can be given here. A junior physician was taking a session in the teaching room; he had just asked the students for the cause of a particular condition:

> St. Myocarditis....
> Dr. (derisively) Yah!
> St. Well, that's the pathological description that given for it ....
> Dr. Pathology's finished - we're on clinical work here - pathology's waffle, just cover-up stuff.

The clinical phase of medical training is a popular part of the undergraduate course, and the teaching methods associated with it are those which studonts value highly. For example, in their responses to the Royal Commission' survey, students in their final year rated clinical teaching methods very highly. The authors of the Report note that: 'A striking feature is the high rank accorded to the value of bedside teaching', which was rated as the most valuable form of reaching at all but one medical school; 'working in wards' was also ranked third in value (Royal Commission on Medical Education, q968, p.350). The students at Edinburgh are no exception in welcoming and valuing their initiation into clinical medicine, and the educational practices associated with it. One female student went so far as to describe herself as being 'intoxicated' by the experience.

The transition to clinical work is seen very largely in terms of a set of perspectives which emphasise the <u>practicality</u> of clinical work. The students learning is seen to consist in large measure in the process of gaining 'experience' through their direct immersion in the reality of medicine, rather than the assimilation of 'academic'

facts. In Parts II, III and IV of the thesis, the nature of such 'experience' and of such medical 'reality' are explored. The following section completes Part I with a resume of the work of the fourth year.

The Work of the Fourth Year

The most salient aspect of the fourth year in the medical school is the fact that it includes the students first formal introduction to clinical work in the two major clinical specialities of Medicine and Surgery. During this period of the course, the clinical work is mixed with contained laboratory work in the paraclinical sciences commenced in the preclinical phase. Clinical instruction is confined to the mornings of each day, whilst the afternoons are mainly devoted to classes and practicals in Pathology and Bacteriology.

The student's day begins with a lecture from nine until ten o'clock in the 'Nature of Disease' course. In the first fortnight of the Autumn term, these lectures comprise an 'Introduction to Clinical Medicine', and include a number of lectures on such general topics as: 'The Approach to the Patient'; 'History-Taking - The Present Illness'; 'Factors in the History - Previous, Environmental and Genetic'; 'Observation of the Patient', and introductory talks on the clinical examination of the various bodily systems. From then on the lecture course proceeds system by system, with talks from members of staff from various clinical and paraclinical departments. It is partly intended that this course of formal lectures should free time and personnel on the clinical units, by avoiding the unnecessary repetition of the teaching of basic information. It is also an attempt to provide some

measure of integration between the various departments concerned with the teaching in the clinical phases, and to counteract the perceived drawbacks of an otherwise fragmented course. At the time of my research the course was something of an innovation; in previous years the students had been taught the same introductory information on their various clinical units. It was not an unqualified success, at least in the estimation of the students, who found that the lecturers involved in the course tended to reproduce their own specialist 'angle' on topics, rather than offering a genuinely 'integrated' approach - a state of affairs which led to repetition in a number of areas, and what the students saw as the inclusion of too much detailed instruction on a number of topics.

At ten o'clock the students make their way to various clinical attachments in the teaching hospitals involved in the fourth year programme. The teaching takes place in five of the hospitals connected with the univerisity - The Rpyal Infirmary, the Western General, the Eastern General, the Northern General and the Leith Hospitals. (The Northern General Hospital was used for teaching only during the first term). During the autumn term the students are all attached to medical units. In the Easter and summer terms, they are attached to one surgical unit and to a second unit in medicine. For these two terms the year group is divided into two and the two halves rotate - whilst one is doing medicine the other is doing surgery. In all there are twelve clinical units taking fourth-year students for medicine, and seven for surgery.

The groups in which the students are attached to medical and surgical units are known as 'cliniques' - a term which recalls

Edinburgh's close historic associations with the tradition of European medicine. The approximate mean size of clinique during the first term (in medicine) is twelve students; in the second and third terms the mean size is approximately seven students per unit in Medicine, and ten students in Surgery. These cliniques provide the students with a clearly defined group of peers with whom they interact, with whom they work, and with whom they share their experiences. Even though not all members of a clinique are close or friendly before they come together in the cliniques, they come to find themselves becoming acquainted through sharing the common experience of their clinical work. In these groups, students negotiate their common views on shared problems or debate their differences of opinion. On the wards, between teaching periods, in the hospital canteens, or on the coach trip to and from an outlying hospital, the members of clinique groups can reflect together on the teaching they are receiving. Students who are in the Final Phase of the undergraduate course are also attached to the same units. The students in the two years are not normally taught together, although they do come together on some occasions on the wards, and there are opportunities for informal contacts between them.

The general pattern of a clinical unit comprises a number of wards - male and female, with a teaching room attached, plus the normal procedure rooms, ward secretary's office (if there is one), ward sister's room and so on. In the Royal Infirmary, each of the units has two large open wards - one male and one female - which open off the main hospital corridors, and a number of smaller wards. In the other hospitals, the wards tend to be more often arranged in smaller units.

Each clinical unit is staffed by a small number of consultants (two, three or four being the usual numbers), plus their 'firms', of senior registrars, registrars, senior and junior house officers. Clinical teaching is undertaken by staff at consultant grade and by more junior members of the hospital staff- the precise division of labour varies from unit to unit. Some teaching may also be undertaken by doctors who are not members of the actual unit; some medical attachments, for instance, include occasional sessions conducted by psychiatrists, or general practitioners.

The morning lectures take place in the Royal Infirmary. Afterwards, the students who area attached to wards in that hospital go straight there. For those who are in cliniques elsewhere, there are buses provided to take them from the main medical school quandrangle to their hospitals, and to bring them back at the end of the morning. In practice, this means that the teaching in these outlying cliniques begins at about 10.30, and that by the time that the students have returned to the University site, their lunch-hour is much reduced.

One consultant once described the arrangement of wards in the hospital as being 'like a series of cottage hospitals' - referring to the degree of autonomy enjoyed by the members of each unit. Each group of doctors take the responsibility for arranging the teaching of the fourth year students, and for arranging this to fit in with their other work of patient care, research and administration. The precise arrangements that are adopted vary, but there are common features in the teaching provisions that recur from unit to unit. (There are some general differences between Medicine and Surgery in the teaching arrangements that are normally implemented).

Here I shall outline the commonly employed varieties of instructional situation that are recognised by the students and staff alike as distinct types of social context and distinct types of teaching.

'Bedside teaching.' This is the most distinctive and characteristic aspect of medical education in the teaching hospital. A doctor takes a group of students into the ward and teaches at a patient's bedside. He may spend all of his time with just one patient, or conduct a 'round' - teaching on a number of patients in succession. Such teaching provides occasion for a number of areas and topics to be worked on. Students are taught and practise the techniques of history-taking and physical examination. Physicians and surgeons themselves may demonstrate these skills to the students. The individual patient may also serve as a starting point for a more general discussion of pathology, treatment, clinical method and so on, which take the participants away from the specific problems of the individual patient in the bed.

'Tutorials.' Each clinical unit has its own teaching room. Here doctors may conduct small group teaching sessions of a more 'theoretical' or 'didactic' nature, without recourse to patients in the wards. On some units there are regular series of such teaching sessions. For instance, on one medical unit there were regular weekly tutorials on therapeutics (clinical pharmacology); similarly, on one surgical unit there were regular tutorials on such matters as fluid loss and electrolyte balance, shock, burns, etc. The teaching room may also be used for the discussion of points of interest that arise at the bedside, and which the teaching clinicians wishes to

develop further; students and staff may also use the room in order to avoid a discussion of potentially distressing features of the case within earshot of the patient himself.

'Waiting Nights'. The individual hospital units receive emergency admissions on a rota basis. On their weekly 'receiving' or 'waiting night', students attached to the unit are expected to attend for at least part of the evening. Usually the students come in in small numbers - twos or threes and take it in turns. On waiting nights they are able to see patients who are admitted in acute phases of various conditions (e.g., myocardial infarctions in medicine, appendicitis in surgery). In Surgery, waiting nights provide opportunities for students to go into theatre and observe operations - such as appendicectomies.

'Out-patients'. Students are sometimes taken into the consulting rooms of the hospital out-patient departments. They 'sit-in' on the consultations between the doctor and the succession of patients whom he sees. The students may also be called upon to question or examine the patient themselves.

'Ward-meetings'. These sessions are not specifically designed as teaching occasions, but are, in a sense, educational for all those concerned. The staff and students (fourth-year and Final Phase) come together to discuss cases that they have on the wards, or who have recently been on the wards. Cases are presented by Final Phases students or by members of the medical staff, and rarely, by a fourth-year student; the diagnosis and management of the patient's condition is then discussed by the entire unit. One of the pathologists may come to the meeting and discuss in detail the findings of biopsies, the

results of post-mortem examinations and so on. For the most part the junior students take little active part in these meetings, though the doctors will pause and explain points of interest to them from time to time.

'Clerking'. As well as seeing patients with clinical teachers in small groups, the students are also given the task of seeing patients individually. This activity, often referred to as 'clerking' is designed to allow students to take a full history and perform a full physical examination on the patient. When done thoughly this takes the student a number of hours, spread over a number of days. On some days of the week a period of time will be set aside for the students to engage in this activity. The members of the clinique have individual patients allocated to them on a weekly basis - usually a list of students and 'their' patients is posted on a Monday morning. On completion of the history, examination and so on, the students are required to formulate a differential diagnosis and write up the case notes - as if they were responsible for the admission of the patient - which are read and commented on by a member of staff. From time to time, time may be set aside for the clinique members to meet and go over these notes together, and to present cases to each other on the basis of these 'long cases'.

The term 'clerk' and 'clerking' or 'clerkship is one with a broad application to the activities to students in teaching hospitals. Historically speaking, medical 'clerks' and 'dressers' in surgery were apprentices to clinicians and performed menial tasks on the wards for their teachers. The term as presently used tends to imply that students have some involvement in the daily care of the patients.

As the Royal Commission on Medical Education (1968) explains,

> A special feature of medical education in Britain ... has been clinical clerking, the attachment of a small group of students to a 'firm' so that they may learn by sharing in the day-to-day care of the patients. Although students can no longer play as important a part in medical care as they did in the past this system of attachment to and regular attendance upon particular patients, as members of the team responsible for them, is still most valuable.
>
> (Royal Commission on Medical Education, 1968, para 230).

The task of taking a 'long history' - whilst not making the fourth year student a part of the 'team' responsible for the patient - does allow him or her to go deeper into the case than is normally possible during bedside teaching sessions, when there are up to twelve other students present. Students may also trace the course of their patient's illness over time, and 'follow up' the management of the patient's condition and its outcome.

The bedside teaching and 'clerking' that are under discussion here cannot be taken as 'typical' of all medical education in Britain. There has been, and still is, a difference in emphasis between the Scottish medical schools and their English counterparts (especially the London schools). This is expressed by one author from a Scottish medical school:

> In England the tendency has been to use the 'apprenticeship' system, with the student 'walking the wards', while in Scotland there has been an emphasis on small-group teaching at the bedside ....'
>
> (Crooks, 1975).

The Scottish method, which is pursued at Edinburgh, means that

the students do not routinely become involved with the day-to-day care and progress of individual patients. The form of 'clerking' that they perform is therefore an important way in which such involvement may be generated on the wards. Students' responsibility for patient-cate begins in the elective period arranged for the summer vacation between the fourth and fifth years.

Since the students do not have responsibility for the care of patients, the main focus of the fourth year is a grounding for the students in basic clinical method. Emphasis is placed on students' acquisition of the methods of clinical inquiry - the elicitation of the patient's history and the performance of a physical examination for the physical signs of the illness. There is less emphasis placed upon the routine management of patients, and the practicalities of diagnostic or therapeutic procedures, although students do have some exposure to them.

Once a week there is a clinical lecture, when one of the consultants in medicine addresses the students who are attached to Royal Infirmary medical units. He may bring one of his patients into the lecture theatre in order to illustrate his talk - in which case the patient's bed is wheeled into the room. Attendance at these lectures is rather patchy, and many students 'skive off' for an early lunch break. (They do feel constrained to attend the lecture if it is being delivered by a consultant from their own attachment, least their basence be noted and held against them). Students often appear to go along to the clinical lectures in order to 'have a look at' the various consultants, rather thsn necessarily regarding it as a major part of their clinical learning. They can go and see if the various

consultants match up to the reputations that they have variously gained among the student body.

One of the most dramatic and absorbing experiences for students during the fourth year is their first exposure to surgery. Although they do not necessarily take an active part in the actual performance of operations, the students get an opportunity to observe the work of the surgeons in the operating theatre. The theatres are equipped with galleries from which the clinique members can watch what is going on; the surgeons can address remarks or a running commentary on the operation they are performing. Like the first days in the dissecting rooms, a student's first operations may be seen as major landmarks in a student's growing repository of experiences. Like the introduction to anatomy, it may be regarded with slight misgivings, but the novelty soon wears off, and it becomes one of the taken-for-granted things which students come to accept.

PART II : Professional Segmentation and Students' Experience

'A Physician knows everything and does nothing;

A Surgeon knows nothing and does everything ...'.

(From a medical student proverb) .

'During the following three months I learnt a

little about surgery and a lot about surgeons'.

(Richard Gordon, Doctor in the House, 1952, p.73).

2.1 : The Professions, Student Culture and Medical Education

Traits of a Profession

In the extensive literature on 'the professions' and 'professional socialisation' there are two major, contrasting approaches which are both well represented in the published work on medical education. These are the 'trait' theories and the 'process' approach. 'Trait' theories, discussed first, concentrate on the assumed distinctiveness of the professions - their similarities to each other and dissimilarities from other occupations not commonly designated 'professional'. This view takes as its problematic the characteristics that are the differentia specifica that define professions as such. Trait theories derive largely from Carr-Saunders's classic formulation (Carr-Saunders and Wilson, 1933) and subsequent refinements into the 'the professions', 'new professions', 'near professions', and 'would-be professions' (Carr-Saunders, 1955).[1] This approach has led to numerous attempts at specifying the professions' distinctive nature and to further sub-divisions and typologies: such as Etzioni's (1969) separation of 'professions' and 'semi-professions', and such further specifications as 'personal service professions' (Goode, 1969); and 'incomplete professionalization (Denzin and Mettlin, 1968).[2]

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1. Flexner (1915) in fact provided an earlier statement of 'trait' theory, where he offered the six criteria of: intellectual activity; an extensive knowledge-base; practical purposes; a basis of transmittable techniques; self-organization; a welfare-orientation towards work. Whilst the approach has often been elaborated subsequently, most of the characterisations offered bear a strong family resemblance to Flexner's.

2. The endless production of such typologies and sub-divisions of the category 'professions' seem to be a classic case of what Leach (1961) calls 'butterfly collecting', and is a process that could apparently be extended indefinitely.

Goode (1957) provides an influential statement of this position. He sees the sine qua non of professional status in what he calls the 'community of profession', believing that professions can be designated 'communities':

> ... by virtue of these characteristics:
> (1) Its members are bound by a sense of identity.
> (2) Once in it, few leave, so that it is a terminal or continuing status for the most part.
> (3) Its members share values in common.
> (4) Its role definitions vis-a-vis both members and non-members are agreed upon and are the same for members ...

Goode's viewpoint thus stresses the internal homogeneity of professional groups, their shared values and role models. Elsewhere he presents a list of traits that he takes to be distinctive (Goode, 1960). He offers two 'core characteristics' and a series of 'derived characteristics'. The core characteristics are 'a prolonged specialised training in a body of abstract knowledge, and a collectivity or service orientation'. Here again, Goode emphasises a consensual, collectivity view of professions, and the theme is carried through in the ten derived characteristics which flow from the two 'core' characteristics.

Goode is by no means alone in offering these views. Similar 'trait' theories have been propounded by Greenwood (1957), Millerson (1964), and Barber (1963).[3] Barber offers four characteristics which recapitulate Goode's basic approach: 'a high degree of generalized and

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3. Further examples of the assembly of key 'attributes' of professions and professional work can be found in Greenwood (1962), and Hall (1969). A detailed exposition of an ideal-type specification of the 'professional' is also provided by Moore (1970).

systematic knowledge', an 'orientation primarily to community rather than individual interest', 'self-control, by means of internalised codes of ethics and voluntary in-groups', and a reward system which 'tends to consist... in a combination of prestige and titles, medals, prizes, offices in professional societies and so forth, together with sufficient monetary income for the style of life appropriate to the honour bestowed. 'Barber and Goode differ in detail - for instance Goode sees income and prestige as secondary and derived characteristics, placing much less emphasis than Barber does. But overall there is considerable agreement among 'trait' theories approaches. Ben-David (1963), in his review of the literature finds such consensus in the common emphasis upon the distinctive <u>community</u> of such occupations. He notes that authors:

> '... provide a consistent set of observations about the distinguishing characteristics of professional organization and behaviour. These are: the existence of a vocational sub-culture which comprises explicit or implicit codes of behaviour, generates an <u>esprit de corps</u> among members of the same profession, and ensures them certain occupational advantages, such as an equalitarian rather than authoritarian type of supervision in bureaucratic structures and monopolistic privileges to perform certain types of work... It seems that professional sub-cultures and the rest of professional characteristics emerge on the basis of prolonged study and training in a certain field and can be maintained by research activity, professional literature, legislation, etc. even where professional organizations are not very prominent and do not possess official privileges'.

The 'trait' theories of the professions are closely interwoven with the core assumptions of functionalist theorizing, with the characteristic emphasis upon consensual models of social order - in

This case, the consensus of the professional 'community'. As Bucher and Strauss (1961) put it:

> 'Functionalism sees a profession largely as a relatively homogenous community whose members share identity, values, definitions of role, and interests. There is room in this conception for some variation, some differentiation, some out-of-line members, even some conflict; but, by and large, there is a steadfast core which defines that profession, deviations from which are but temporary dislocations'.

Parsons'c functionalism illustrates Butcher and Strauss's point. Parsons treats 'the professions' as a key example in the exposition of his theories (e.g. Parsons 1939, 1968) and the medical profession as a type case (Parsons, 1952, Chapter X passim). His treatment of the professions is couched in more abstract terms that most 'trait' theories, and at a higher level of generality. But in his insistence on the centrality of cognitive rationality and affective neutrality he too tends to over-stress the apparent distinctiveness and internal homogeneity of 'professions' in the occupational world. Rueschemeyer (1964) draws attention to the underlying weakness of functionalist approaches. In particular he takes them to task for the assumption of 'functional unit' which is identifiable in the work of both Barber and Parsons. They propose that professions are characterised by generalized and systematic knowledge, which is of equal value to all members of society; they also take it that society will ensure that the community interest of the professional occupation will be maintained, so as to ensure the equitable distribution of their expertise. Rueschemeyer calls into question the notion that the 'central values' identified by functionalists are subscribed to equally by all sectors

of society; he thus undermines the basis upon which the 'community' of professions is said to be based. If there is no necessary integration and functional harmony in the values espoused by members of a profession, then the way is open to examine 'professions' as coalitions of segments, each serving potentially different, and even competing, interests.

Professional Process and Segmentation

Bucher and Strauss are leading proponents of an alternative formulation of 'professions'. Whereas the functionalists see professions as a special category of occupations, the proponents of the second position see them as essentially the same as other occupations. This view is particularly identified with the symbolic interactionists of the Chicago School - Everett Hughes and his colleagues.[4] Gouldner (1962) summarises the difference between the two 'schools' thus:

> '... the former (functionalists) are more respectful of the medical establishment... they are more prone to view it as a noble profession. (Chicago sociologists) however, tend to be uneasy about the very idea of a profession as a goal for study, believing instead that the notion of an 'occupation' provides more basic guidelines for study, and arguing that occupations as diverse as the nun and the prostitute, or the plumber and the physician, reveal instructive sociological similarities'.

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4. Hughes himself (1958, 1963) provides something of a link between the two approaches under examination. On the one hand, in his notions of 'license and mandate' (1958), he takes note of the elements of 'trust' and 'service' that are stressed by most trait theorists (and which Freidson, 1970, has transformed into a new and sophisticated version of trait theory). However, Hughes and his colleagues are far less reverential in their attitudes towards the occupations so characterised (cf. also Habenstein, 1963).

For the Chicago-trained, or Chicago-influenced, interactionists, the search for the criteria which define a profession is quite misplaced. 'Profession' is itself seen as a commonsense term with no precise reference: it is a title which is claimed by occupations under certain conditions and at particular times. The crucial question about such occupations, as Hughes (1958, p.44) maintains, is not "Are they professional?', but rather, 'When do people begin to apply this label to themselves?'. 'Profession' is therefore a title - a symbolic label - which people in some occupations try to claim for themselves (Becker, 1962). There is, in this conception, nothing <u>inherent</u> in the nature of the work, training, social control, and so on which marks out 'professions' from other occupations, and hence, no core characteristics to be found.

By the same token, there can be no assumption of consensus within the occupation; there is no single set of values and toles which are adhered to by the members and which necessarily constitute a basis of social order within the profession. On the contrary, the view of Hughes and his school opens the way for the recognition of <u>conflict</u> as a normal state between members of the same occupation. The classic formulation of this perspective is that of Bucher and Strauss (1961), where they write that 'the assumption of relative homogeneity within the profession is not entirely useful: there are many identities, many values, and many interests'. Bucher and Strauss use the term 'segments' to refer to coalitions of interests and outlooks within an occupation. Segments may be defined by a number of criteria: special ties may in some cases be thought of as major segments, although Bucher and Strauss maintain that closer investigation

will reveal competing segments within specialities:

> 'Within a core speciality like internal medicine there are many different kinds of practice, ranging from that of a 'family doctor' to highly specialized consultation, a service to other doctors ... Further diversity (is) introduced when professionals assign different weights to such activities as research, teaching, and public service'.

Despite similar training and qualifications during the early stages of their careers, members of different occupational segments may hold widely differing views on the nature of their professional undertaking. The essentially static view of the 'trait' theorists is replaced by one which sees 'professions' as existing in a constant state of flux. Not only do occupations strive to attain 'professional' status, and to validate their claims, but segments are also engaged in attempting to improve the status and press the claims of their own special interest groups. The approach posits not a 'state of 'professions', but rather a process model, which sees them as 'loose amalgamations of segments pursuing different objectives in different manners and more or less delicately held together under a common name as a particular period in history'. (Bucher and Strauss, 1961) Segments' members establish their presence and interests through their 'sense of mission', whereby they seek to stake out their own legitimate area of work and expertise, or to apply their technical knowledge to new areas and hence operate as 'colonists' in the field. A line of cleavage which is often encountered in medicine, for example, lies between those who carry forward the banner of research and the 'scientific' bias of clinical work, and those who frown upon what they see as over-dependence upon such resources, as against reliance upon the

clinical expertise of the individual doctor. Bucher and Strauss summarise the position:

> Professional identify may be thought of as analogous to the ideology of a political movement; in this sense, segments have ideology. We have seen that they have missions. They also tend to develop a brotherhood of colleagues, leadership, organizational focus and vehicles, and tactics for implementing their position.

The notion of a professional 'ideology' is taken up in a major empirical investigation of segmentation - an ethnography of interprofessional relations within psychiatric hospitals (Strauzz, Schatzman, Bucher, Ehrlich and Sabshin, 1964). The authors document the relationships between the organization of institutions, professionals' commitments to various types of therapy, their day-to-day management of patients and problems, and the formal and informal negotiations between members of different occupations within the hospital. They conceptualise the hospital as an arena in which 'varying professionals could be found at different stages in their respective careers, adhering to various ideologies and career models through their development of operational philosophies that were compatible with institutional structures and requirements'. (Schatzman and Strauss, 1973, p.116).

The major medical segment of psychiatry contains three distinct groups of therapists. Some psychiatrists are wedded to a 'somatic' view of illness and therapy; they apply theories of insanity which are closely related to a 'disease' model and rely on chemotheraputic techniques. This group are opposed by two others - the 'psychotherapeutic' and the 'sociotherapeutic'. A questionnaire administered to health workers in the hospitals showed disagreement and conflict over appropriate forms of therapy:

> Our findings about professional role perception indicated that consensus is not complete <u>within</u> professional groups about which therapeutic tasks each should perform and under what conditions. More important, there are considerable discrepancies among the professions in the views of the competence and responsibilities of each of the others... There is far from mutuality of expectations or 'role complementarity' among the professions.
>
> (Strauss <u>et al</u>., 1964, p.90).

The day-to-day functioning of the hospital therefore depends upon the informal negotiation of order, through continuing processes of bargaining and 'give and take' (cf. Strauss <u>et al</u>., 1963) Thus, in addition to querying the functionalist view of internal homogeneity within 'professions', the Chicago-school researchers also throw doubt upon a view of complementarity between categories - e.g. between members of the medical profession and nurses and other 'paramedical' workers. Similar perspectives on professions are developed in Bucher's (1962) study of pathologists.[5]

It is often argued that the functionalists and 'trait' theorists are over-reverant towards the claims that professionals make for themselves (e.g. Johnson, 1972). Indeed the traits and criteria are often criticised as being nothing more than the uncritical adoption of professionals' own 'window dressing'. The 'unity' that is claimed is seen as the outcome of 'public-relations' operations by dominant segments (Bucher, 1961). The contrary view tends to be more

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5. Competing professional ideologies have been identified among radiotherapists (Elliot, 1973) and computer programmers (Sheldrake, 1971). Sociologists of science have repeatedly documented divergences of ideology and practice in occupational groups - for example Cotgrove and Box (1970; Glaser (1964).

cynical in its approach, and founded upon a far less rosy view of the professions (cf. Gouldner, 1962 as cited above). Whereas the former theory stresses how professionals act in accordance with high-flown ideals such as 'service' and 'collectivity' orientations, the latter emphasises more mundane aspects of their work. Writers of the Chicago school - or those influenced by them - have studied how members of occupations operate pragmatically and survive amidst conflicting interests in the everyday performance of their work. The moral concerns of the Chicago school theorists lead them to celebrate the 'underdog' and the deviant and, at the same time, to debunk the rhetoric of super-ordinate occupational groups.[6] Substantive discussions of this approach, in the context of medicine, are presented in Strauss et al., (1963, 1964). As Johnson (1972) points out, this latter approach does not necessarily solve all the problems posed by the nature of the 'professions'. It translates 'professionalism' into a 'claim' that is promoted by members of an occupation, and 'professionalization' into the process whereby that claim is impressed upon other members of society (e.g. Hughes, 1958). Yet the proponents of this view do not necessarily establish the nature of the actual claims that are put forward, either collectively or by segments of the occupation, not the circumstances under which such claims succeed or fail. Nevertheless, the approach provides a framework for the analysis of the dynamics of social change, and the processes of inter and intra-occupational conflict and negotiation (cf. Perrucci and Gerstl, 1969; Perucci, 1973; Mungham, 1975.).

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6. Becker makes this general position clear in his own essay on partisanship (Becker, 1967), a position for which Gouldner (1968) takes him to task, as being 'redolent of romanticism'. (The 'underdog' approach is also clearly apparent in Becker, Geer and Hughes, 1968, p.130).

Medical Education and the Sociology of the Professions

The two approaches to 'the professions' outlined above meet in the literature on medical education. Whatever the debate over definitional problems, there is no writer who is in any doubt that, if there are such occupations as 'professions', then medicine must certainly be included. Hence the processes whereby medical men and women are produced provide a crucial testing ground for competing views of the nature of professional socialization. The two major schools of thought are each represented by a classic study of an American medical school, both published at about the same time. One is a detailed logitudinal study of students as they pass through a medical school; the other is a more fragmented series of studies concerned with a number of central themes in professionalization.

The first study to be considered is the Columbia-based research (Merton, Reader and Kendall, (eds) 1957) The Student Physician, which focused primarily on Cornell medical school. The second is the Chicago school study of Kansas University medical school, Boys in White (Becker, Geer, Hughes and Strauss, 1961). These two studies are marked not only by differences in theoretical orientation but also by different methodologies. Whilst both studies utilised participant observation, interviews and survey techniques, the Columbia study relies much less on observational methods. The Kansas study used participant observation as its central research technique. In evaluating the different pictures of medical students and their lives presented in the two works it is hard to separate out the different theoretical and methodological presuppositions from possible differences between the institutions studied.

Each book offers a distinctive and coherent view of student life in the medical school, and one which is directly linked to the implicit perceptions of the occupation, as the end-point of the socialisation process. Proceeding from a functionalist view of the professions, Merton and his collaborators operate with this distinctive set of roles and values as the terminus ad quem of medical education:

> medical students 'are engaged in learning the professional role of the physician by so combining its component knowledge and skills, attitudes and values, as to be motivated and able to perform their role in a professionally and socially acceptable fashion'.
>
> (Merton et al., 1957, p.41).

Here the distinctive knowledge and values of the profession are seen as laid down the initial training period.

In line with their interest in day-to-day survival and their rejection of a special 'professional' category of occupations, Becker and his collaborators stress the immediate experience of medical school life, and play down the relationship of socialization to future behaviour as a practitioner. Rather than assuming the teleological assimilation of a repertoire of roles and values, Becker and his colleagues concentrate on how students survive - how they get through medical school.

The two approaches can be seen as attempts to answer two different questions. The Columbia study asks, 'How do people become doctors?' (Becker and his collaborators are decidedly ambivalent over the relationship between what is done in medical school and future performance as a doctor). The emphasis of the Kansas study is therefore

on 'situational learning', or what they have called 'learning the ropes' (Geer, Haas, Vona, Miller, Woods and Becker, 1968). Initiates are faced with immediate, practical problems of getting by in novel situations and must find ways of coping with their work therein. Where there are others available who are 'wise', the necessary 'survival kit' of tips, wrinkles and doges can be handed on: when such others are not available they must be found anew either individually or collectively:

> Newcomers in any social situation go through an initial process of learning the topes: finding out who the other people in that situation are, where they are located, what they do, what they expect the newcomer to do, and how they want him to do it. We seldom dignify this process by calling it learning.
>
> (Miller, 1970, p.118).

Yet it is precisely this aspect of 'learning' which is seized on by Becker and his co-workers. Indeed they explicitly draw their approach from industrial sociologists, to whom the notion is of importance with regard to workers' 'level and direction of effort' (e.g., Roy, 1952).

Central to the Kansas study is the notion of a 'student culture' (cf. also Hughes, Becker and Geer, 1958). Within the relatively self-contained institution of the medical school a distinctive sub-culture develops among its students. The content of the sub-culture (as least as regards academic matters) derives from the pressing problems students encounter in their daily lives. In seeking solutions to their common problems students generate what are referred to as 'group perspectives' (Becker et al, 1961, p.36), by which is meant

> ... modes of thought and action developed by a group which faces the same problematic situation. They are the customary ways members of the group think about such situations and act in them. They are the ways of thinking and acting which appear to group members as the natural and legitimate ones to use in such situations.

Such 'perspectives' are of particular significance in relation to 'choice points' where previous knowledge and experience do not provide recipes for action; here members will negotiate their shared solutions to difficulties.

For the Kansas students, the overwhelming problem faced during the preclinical period is the sheet amount of scientific knowledge which the faculty apparently expect them to digest. Students begin ('the initial perspective') with the belief that everything is important and must be learned. However it soon transpires that this is beyond human capacity and new solutions to the problem are sought. Two alternative perspectives are then generated by the students. Those who adopt the first of these (the 'practice' perspective) concentrate their efforts on just those items of information that they believe will be of importance when they practice as doctors. As Hughes, Becker and Geer (1958) put it, 'Selection of these facts is a matter a student feels quite competent about even if he has only been in school a few weeks'. The alternative viewpoint ('what they want us to know') is adopted by those who set their sights on passing the examinations to stay in school. On this basis students attempt to limit their output of effort by concentrating on material they think that members of staff deem most important and are therefore likely to set as examination topics. They therefore employ various strategies to ascertain the faculty's orientations. On the basis of their decisions students can then cut

through the amount of detail they encounter and can concentrate their efforts more effectively on a restricted range of material.

> In the clinical part of the course at Kansas,
>
> The major problems requiring collective solution no longer lie in the realm of examinations. Rather, students focus their attention on how to deal with the continuous pressure of a heavy load of clinical work and how to get the most out of that work in terms of the future one envisions for himself in medicine.
>
> (Hughes, Becker and Geer, 1958).

On the basis of their orientation students generate and employ the 'experience' and 'responsibility' perspectives in evaluating their experiences. Hughes, Becker and Geer summarise the effect of these views thus:

> These specific items of student culture may be summarised as follows:
>
> 1. The patients whom it is really important to study thoroughly are those who have common diseases - whether simple or complicated - for which there are available treatments a general practitioner could utilize.
> 2. All those kinds of clinical work that they cannot imagine themselves doing in general practice are regarded as a waste of time.
> 3. Courses in which they are not given practise in techniques they regard as important for the practitioner to know tend to be disliked.

As in the preclinical years such views can lead to a disjunction between what faculty expect and require students to do, and what they themselves consider to be most appropriate. For instance, the students resent having to do routine laboratory work - analyses of blood and urine

samples - on patients they have assigned to them; they reason that it a waste of their time and it is not something that they will be called upon to do themselves once they are qualified and begin to practice.

The view taken of 'student culture' and the position of students in the medical school in the Kansas study is encapsulated in the title - Boys in White. In this designation the authors emphasize the subordinant status of the students; their analysis follows the Chicago pattern of viewing life through the eyes of the 'underdog' - and the medical students are cast in this role. There is a marked social barrier between students and faculty members; the process of socialization is characterised as a 'trial by ordeal' in which students must find strategies to overcome the obstacles put in their path by their teachers. At its most extreme the joint development of a student culture can be seen as a defensive alliance against a hostile faculty. More generally the relationships between staff and students appear to be characterised by mutual suspicion and distrust. One of the perspectives described is glossed by Becker et al., (1961) as 'The faculty can prevent any student from getting through school, or less extreme, can make his passage .... difficult and uncertain'. Hence it becomes important that students learn ' to present them with either the substance or the appearance of learning'.

In many ways then, the demands of faculty and the perspectives that embody student culture work in opposite directions. In emphasizing the practical problems students face and their agreed solutions, Becker and his collaborators picture the medical students in a very similar light to other sorts of students. This is in keeping with their 'non-distinctive' view of professions, and is substantively illustrated by reference to the parallel study of liberal arts students

at Kansas University (Becker, Geer and Hughes, 1968), where the authors again focus on the topics of student culture and the collective negotiation of academic effort.[7]

The picture presented of Cornell by Merton and his co-workers is radically different. As with the Kansas study, the title - The Student Physician - is revealing. The relationship between student culture and faculty perspectives is seen as complementary, rather than conflict-ridden. The two cultures are portrayed as mutually reinforcing. The student culture is described as a 'little society' whose function is to maintain the communications network of the school, clarifying the standards and controlling behaviour based on norms that are mutually held by students and faculty. This aspect of student life at Cornell is also commented on by Fox (1955) who, describing the subculture of medical students, writes that it 'appears to be one of the most significant forces that helps to shape the attitudes of doctors-in-training'. Such attitudes, Fox implies, are almost entirely supportive of faculty demands on the students, and rather than constituting the grounds of dissent between students and staff, the subculture is important in 'establishing standards of professional and personal behaviour'. The Cornell students are described as being treated as 'junior colleagues' by the staff, were treated in an egalitarian manner and were being groomed for full professional status as soon as possible. Thus, when Bloom summarises the two studies, he

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7. The Chicago school view of situationally determined learning owes much to the study of organizations as 'institutions'. The 'underdog' view of the medical student at Kansas, for example is redolent of Goffman's account of the 'inmate' of the 'total institution' (Goffman, 1961). A similar perspective is that offered by Dornbusch (1955) on the military academy.

characterises Kansas students as 'going underground', and those at Cornell as 'joining hands' (Bloom, 1973, p.94).

A further, largely atheoretical, description of student culture in a medical school has recently been published by Bloom (1973). Power and Dissent in the Medical School is a study of the State University of New York Downstate Medical Centre (SUNY) carried out in the early 1960s. In fact, 'student culture' is something of a misnomer here, as student culture at Downstate, in comparison with available descriptions from other medical schools, is characterised only by 'its amorphous and unstable structure'. Indeed, it is difficult to find a society at Downstate' (p.97). This is a reflection of the problems which initially prompted Bloom's study - student disaffection with the Downstate Centre and its high wastage rate. Bloom found a state of affairs even further removed from Cornell than that which is described for Kansas.

> The faculty and students, although they agree very strongly about what the major educational goals of this institution should be, each perceived the other as being opposed to these goals.
>
> (Bloom, 1973, p.141).

Rather than being treated as junior colleagues or partners, students at SUNY reported a feeling that they were 'on trial' and that, despite the high calibre of students and staff alike, the school had the reputation of being a 'flunk factory'. Rather than forming a 'little society' which complemented the faculty views, the students were alienated from the staff and from each other. Their defensive strategy, rather than a collective negotiation of shared perceptions

and courses of action, was more individualistic and more passive. Their approach was one of 'survival' by 'playing it safe', and maintaining a style of trouble-free anonymity.[8]

Since they see the inculcation of roles and values characteristic of the medical profession as the major function of medical education, the Columbia school place considerable stress on what is described as the 'climate of values' in medical schools. Merton (1957) suggests that there are two, concurrent, modes of learning that are involved in professional education. He contrasts didactic teaching, which leads to 'direct learning' and 'indirect learning', where 'attitudes, values, and behaviour patterns are acquired as by-products of contacts with instructors and peers, with patients, and with members of the health team'. Hence the examination of the informal 'climate' of medical schools assumes crucial importance since these lead to the differential acquisition of such professional characteristics. This position is detailed by Christie and Merton (1958). Their assumptions are somewhat ambiguous. They suggest differentiation (segmentation) as an organizing principle in studying the range of such climates: 'we assume that climates of value differ to an unknown degree among different medical schools' (p.126). Yet they also seem to operate with their usual view of a relatively homogeneous professional group, speaking of 'the basic values of scientific medicine', as if these were unitary and undifferentiated (p.127). They appear to view the problem not in terms of the production of <u>different sorts</u> of doctor, but rather in terms of more or less successful production of the same sort of doctor:

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8. Miller (1961) described a similar perspective for the students at Buffalo medical school, and talks of a 'passion for anonymity which characterises the American medical student'.

> If the values basic to the practice of scientific medicine have not been strongly instilled in the medical school, it is unlikely that its graduates will acquire these values and live up to them in the often less favourable circumstances of private practice. It is in this functional sense, and not only in the sense of medical ethics, that the climate of values provided by the medical school becomes important, just as the acquiring of knowledge and skills becomes important in its way to the education on the physician.

Christie and Merton even further hedge their bets on the significance of differences in such 'climates', since they equivocate that: 'if these environments differ, it does not follow that the differences need matter for the development of students moving through them".

At the level of primary medical training in the United States then, we can note consistent and divergent differences in approach to the study of medical education. The differences observed hinge on views of the distinctiveness (or otherwise) of 'the professions', and their internal homogeneity.

'Travelling Different Paths': The Study of Interns

The two styles of research represented in the Cornell and Kansas studies are also to be found in corresponding research on postgraduate medical education in the United States. Each approach is employed in two studies of interns. That of Mumford (1970) is conceived largely in the Columbia style, while that of Miller (1970) is explicitly conceived and carried out in the manner of the Chicago school. Faithful to the conception of variation in 'value climates', Mumford's is a comparative analysis of two contrasting types of internship programme, though its methodology approximates more to the 'ethnographic'

approach to the Chicago-trained researchers. The internship programmes described are those provided in 'University hospital' and in 'Community Hospital'. Mumford stresses how, on entering these different institutions, interns can be seen as 'travelling different paths'; each provides a distinctive educational and practical experience for the newly graduated young doctor.

Community Hospital is portrayed as a place where emphasis is upon 'practice' and upon a 'patient-oriented' approach to medicine. University Hospital is more committed to 'academic' and 'scientific' aspects of medical work and training. Thus the types of clinical work and experience which are valued differ between the two institutions. For instance, at Community Hospital the interns are more frequently involved in out-patient work and with ambulatory patients; at University Hospital outpatient work is 'devalued'. In Community Hospital there was much less emphasis on cases that offered the intern the opportunity to display his knowledge or to contribute to the scientific body of knowledge. At University Hospital the 'interesting' patient is seen as one who offers an intellectual challenge to the intern's diagnostic ability. Such patients were described in terms of 'unusual disease', 'unusual manifestations of common disease', 'a good diagnostic problem'. At Community Hospital, the house-staff developed different criteria of 'interest'. They tended more often to stress the worth and interest of any individual patient, and to place greater emphasis on psycho-social aspects of their relationships with patients, rather than the stress on physical diagnosis encountered in University Hospital. In terms of the roles, values and routine work inculcated in the different hospital settings, then, Mumford indicates one process whereby interns are recruited to different segments within the profession of medicine.

The same theme is recapitulated in a study by Kendall (1963) - one of the authors of The Student Physician. Her paper addressed the same themes as Mumford's ethnography, but explores them in breadth rather than in depth, by means of a survey of 5,000 house officers in 167 hospitals in the United States. The hospitals were sampled by reference to two criteria - their degree of affiliation to one or more medical schools and their size. The questionnaire data were supplemented by interviews with hospital administrators and chiefs of service in the clinical specialities. The house officers surveyed were attached to four major types of service - medicine, surgery, obstetrics/gynarcology and paediatrics. Here again the emphasis of the research was upon differences in 'climate', or 'learning environment' that interns and residents experience. Some of the principle findings are summarised in this way:

> ... the visibility of the house staff's performance significantly affects their relations with superiors in the hospital structure.... Conditions making for such observability were more often found in closely affiliated then in unaffiliated hospitals, and, therefore, adequate supervision is more general in the former than in the latter.... House officers tend to have more amicable relations with their peers in closely affiliated rather than unaffiliated hospitals....
>
> A final section examined thelocal-cosmopolitan orientation of different types of hospitals, and considered the implications this might have for the adequacy of educational programmes in these hospitals. It was found, as we expected, that closely affiliated hospitals have more of a cosmopolitan orientation than do hospitals of other types.
>
> (Kendall, 1963, pp.226-27).

As the penultimate sentence cited above suggests, Kendall is, in part,

wedded to a normative view of medical education. As with Merton and Christie, and other members of the Columbia school, she tends to view the different internship programmes as more or less adequate ways of producing good doctors, rather than mechanisms for the reproduction of professional segmentation. Nevertheless, Kendall's research, like that of Mumford, does offer further indication of the range of diversity on the nature of the educational programmes offered in them. The types of institution identified by Kendall and Mumford parallel the lines of cleavage and segmentation described by Bucher (1961), Sheldrake (1971) and Cotgrove and Box (1970). All these studies suggest a broadly defined distinction between occupational members who are oriented towards 'practice' - the use of their specialised knowledge in practical circumstances - and those who are more oriented towards research and the mastery of knowledge for its own sake. (Mixed and intermediate categories may also beidentified between these two extreme types). In both Mumford and Kendall, these differing orientations are conceptualised in terms of the distinction between 'locals' and 'cosmopolitans'. (For the more general connotations of these terms, see Gouldner, 1957 and 1958, and Goldberg et al., 1965). Kendall summarises the applicability of these categories in the context of medical education and practice in this way:

> Here the equivalant of the local influential is the physician who is primarily concerned with what is going on within his immediate environment: with his relations with patients and other doctors in the community, with developments in the county medical society rather than in national organizations, and so on. In contrast, the medical equivalent of the cosmopolitan influential is the physician primarily oriented to what is taking place outside his immediate environment: he wants to know what is going on in other hospitals and medical centres; he wants to find out about thelatest developments in

> research; .... To put it most succinctly, we define a local orientation as one in which the physician is primarily concerned with patients and problems of practice, and a cosmopolitan orientation as one in which he is primarily concerned with scientific medicine and research'.

Although it is not conceived in the same terms, nor founded upon the same presuppositions, Miller's study of interns at the Harvard Unit further contributes to our knowledge of the range and diversity of internship programmes in the United States. The type of segmentation that he is concerned with lies in the stratification of the medical profession. The bulk of the research was carried out in the Harvard University Medical Unit in the Boston City Hospital. Those who are admitted to internships in this institution are being trained for the 'medical elite' - which comprises 'members of segments with recognised claims to intellectual superiority who hold positions of power in the institutions of a profession' (Miller, 1970, p.8). The Harvard Medical Unit recruits highly qualified personnel, and its junior members are trained for careers in academic medicine, in the centres of power and prestige. Miller concentrates on the interns' 'situational learning' - how they 'learn the ropes' and how they 'make out' in the performance of their ward-work.

Miller emphasizes how the particular situational features of the hospital and the unit pose specific problems for the interns in performing competently. The internship, as Miller reminds us, is 'an apprenticeship for fledgling physicians so they may learn medicine by actually providing patient care under the supervision of more experienced physicians' (p.231). Such an apprenticeship takes place in a milieu that is not primarily, education in nature; the realities with which the intern is forced to cope, and the nature of his experience, are moulded by the primary work

of the personnel - the provision of health care - with the more situationally specific interest in clinical research.

As Miller describes it, the success of the intern within the unit is therefore dependent upon his ability to learn the management of the practicalities of his work, and to manipulate such situational learning in order to survive. Implicitly Miller sees the precise nature of the internship, and its distinctive problems, as reflections of its 'elite' nature. He also attempts to gauge whether an 'elite' internship is really different from a run-of-the-mill programme by means of a brief comparison of the interns' daily work patterns on the Harvard Unit, and in a suburban hospital (pp.208 ff.). Miller summarises the differences, and the distinctive nature of 'elite' experience in the following terms.

> Interns at both hospitals had similar jobs to do; they had the responsibility for providing patient care. The significant difference was the way in which their efforts were used by other physicians. Physicians at the community hospital acted to control interns assisting them, for purposes of patient care. Interns at the community hospital served the purpose of practising physicians by caring for patients and thereby facilitating the operation of that hospital andassisting physicians with their medical practices. The Harvard interns did the same; that is, facilitated the operation of the hospital. More than that, however, they also relieved Harvard physicians of a responsibility which would curtail other activities and hereby assisted them with their clinical investigations. Interns were exploited at both hospitals but for different purposes. The difference, then, was not what they did but which purpose they served.

The Medical School as a Segmented Arena

If we consider the major themes of the literature reviewed here, then, it is possible to detect a number of convergences and divergences in research styles and in assumptions concerning the nature of professional socialization. The two major studies of medical education stand opposed. Boys' in White (Becker et al., 1961) concentrates on the here-and-now of students' situational learning in the medical school as an institution. The other, The Student Physician (Merton et al., 1957) emphasizes ways in which the nature of the medical school shapes the physician's future performance, and how the putative values and roles of the professional are laid down. In considering the subsequent research inspired by these works, parallels are apparent as well as consistent differences. Members of the Chicago school, and those influenced by them, see professions as segmented; therefore Miller, for instance, pays due attention to the relationship between interns' daily lives and the professional orientation of the institution and its personnel. By virtue of their preoccupations with 'values climates', the Columbia-influenced researchers, Mumford and Kendall, are also lead to take account of the relationship between institutions and their inmates' learning experiences. Although they tend to adopt a normative approach - predicated on their underlying assumptions about the nature of 'professional' values and work - these latter authors also produce evidence bearing upon the theme of 'segmentation' in the medical profession (though their studies are not explicitly couched in such terms).

The material available from the United States provides a range

of portraits of medical training institutions and of the position of trainees in them - from the 'student physicians' of Cornell to the disaffected student body of SUNY Downstate. In discussing medical education in Britain it is all too tempting to rely entirely on the American evidence - to label British medical schools (either individually or collectively), or British students as conforming to one or another of these American paradigms. Martin (1966), for instance, on the basis of the survey of medical students carried out by the Association for the Study of Medical Education in 1961, has described the British student as comparing most closely with his Kansas counterparts - 'his perspective that of subservience to and alienation from his teachers'. Tempting though this approach may be, it has its dangers. The profession of medicine, recruitment to medical schools and the ideologies and conduct of medical education all differ between the two countries. Without comparable detailed accounts of daily life in British medical schools, the wholesale adoption of the American paradigms (in some cases representing a state of affairs some twenty years ago) may blur issues as much as it may illuminate others.

Moreover, the American reports tend to display the same basic limitation. Whatever differences may emerge <u>between</u> institutions, there is a strong tendency to characterise the whole of a medical school as belonging to one type or another. Becker and his co-authors distinguish between the characteristics of preclinical and clinical studies, and they also outline the students' work in each clinical speciality. But their discussion of the students' experiences remains as a general level - embracing features common to most or all areas of training. Similarly, Merton and his collaborators, although placing greater emphasis on such features as students' speciality choices,

offer little discussion of areas of differentiation within the medical school, beyond an analysis of one innovatory programme. Bloom's comments on SUNY Downstate Center also tend to be couched in terms of evaluations across all the specialities - to a characterization of the medical school as a whole, rather then being addressed to any possible diversity within it.

Yet just as Strauss et al. regard the psychiatric institution as an arena in which professions and segments of professions come together, and where they may compete with one another for spheres of legitimate activity, so the medical school may be seen in the same light. We can conceive of the medical school as an institution within which members of different segments of the medical profession work together, and where they compete for resources, and for recruits among the student body. A preliminary view of the medical school from this perspective has been offered by Bucher (1970). Looking at a medical school as a formal organization, Bucher notes four characteristics. First, the members of faculty have a 'professional identity', which incorporates their specialized bodies of knowledge, a view of its proper application, a view of their speciality's place in the scheme of things, and a view of the relationships that should pertain between members of their specialised field and with members of other fields in medicine. Secondly, such identities are differentiated; they relate to segments within professional specialities as well as the major fields of specialization. Thirdly, members of the organization may have 'multiple and overlapping professional identities'. Faculty members have different 'hats' which they don in different arenas in the medical school (teachers, administrators, etc.). Fourthly, in addition to potentially divergent professional identities, themembers of the medical school faculty tend to hold one assumption in common: 'As persons claiming

expertise in particular areas of knowledge, they expect to be accorded the license to determine what should bedone, how it should be done, and whether it is being done properly. In other words, they believe that they have the right to work autonomously' (p.14). Such a value tends to reinforce the cleavages between the various members and their specialised fields and spheres of influence. A major line of fission that Bucher describes is that between the preclinical and clinical departments, and their divergent perspectives on educational policies are described as coming into play with reference to the great majority of issues that come before faculty.

A further source of segmentation within the training institution is briefly indicated by Kendall (1965). Although her study was not primarily directed towards a consideration of lines of demarcation within institutions, her comments are suggestive from this point of view. Kendall describes areas of conflict between physicians who are in practice in the community and the educators located in the community's medical school. Disagreement is seen to arise between them concerning the place of full-time medical school instructors and of part-time instructors who combine this work with practice in the community. There is also disagreement over the weight that should be attached to research-oriented medicine and instruction, as against a practice-orientation. Such clashes of interest can occur within the arena of the medical school, where full-time medical school staff - the 'academic' doctors and part-time staff are both engaged in educational work. The Royal Commission on Medical Education (1968) takes note of the conflicting perspectives that may typically be held by these two categories of medical teachers:

> Many members of each group have had a stereotyped picture of the other. There are still full-time teachers who see the part-timer as a prosperous, busy practitioner who owes his success to clinical acumen rather than painstaking investigation, whose teaching is based on personal dogma rather than scientific fact and whose interest requires the whims of private patients to take priority over the needs of his students. There are still part-time teachers who see the full-timer as a dessicated preacher, more interested in the advancement of medicine than in the welfare of his patients and unable to offer his students any guidance as to the realities of life outside the ivory tower of his own well-equipped and over-staffed unit.
>
> (Royal Commission on Medical Education, 1968, para 509).

In faculties of medicine the contribution of part-time staff in the clinical subjects is a large one, and the involvement of two varieties of staff-members with such mutual perceptions suggests that professional segmentation and potential conflict would flourish within the medical school - at least at the level of the staff members. Swales (1975) touches on the potential role-conflict experienced by the university-employed physician:

> We are constrained not merely by the demands which clinical work places upon our time but also by the medical environment in which we work and by the powerful economic and social pressures which are applied to anyone who works in the health services. At the same time, as a university department, we should make a special contribution to clinical work and training.
>
> (pp.3-4).

Swales also takes note of potential hostility towards his own 'scientific/academic' orientation on the part of some clinicians. He reports that at the end of a lecture he had delivered on his research, 'an elderly surgeon rose to tell me that he "dealt with men and not with rats" - a source of considerable relief had they but known it to the local rodent population'; the comment and Swales' own tart reply aptly illustrate the mutual hostility that can be engendered between segments characterised by such competing ideologies of medical work.

The medical school is a complex organization, and the complexity is marked in the organization of the clinical instruction. It is fragmented into a large number of clinical departments, which are themselves located in different hospitals, and are further subdivided into separate clinical units. Whilst all these subdivisions are all constituent parts of the medical school, they also share a degree of autonomy. Hospitals and clinical units exist independently in their own right - they have an existence and an identity other than that defined by their participation in the training of medical students. The authors of the Royal Commission on Medical Education (1968) take note of the autonomy of clinical units.

> Medical care in British hospitals is usually organised on the basis that each group of beds is allocated to an individual Consultant (sometimes a member of university staff with an honorary Consultant appointment) who, with the help of the junior doctors comprising his "firm" or unit, has complete responsibility for the clinical management of these beds.... The system has most unfortunate implications for undergraduate clinical instruction, a substantial part of which is given through the attachment of small groups of students to a series of firms in different specialities. The instruction given in a single major

> speciality may be shared between a dozen teachers, each with complete autonomy in his teaching as well as in the treatment of his patients; the Professor, though nominally responsible for coordinating teaching in his subject, does not always have the authority to discharge this responsibility effectively. Students are left to reconcile for themselves.... the clinical information and experience acquired in their various attachments.
>
> (para.516, pp.212-13).

Thus segmentation and differentiation may be the norm within the medical school rather than professional homogeneity.

The approach followed here in analysing students' experience is closely akin to that of Boys' in White, but treats the medical school as internally differentiated. I shall discuss how, in negotiating shared meanings and understandings on their daily lives, the students understand it as an arena of professional segmentation. I shall explore how the Edinburgh students in their first clinical year make sense of their experiences in the various attachments in the teaching hospitals. I shall describe how they evaluate their 'firms' and their clinical teachers.

The emphasis upon students' day to day experiences does not imply (as some readings of the Kansas study might suggest) that the students live solely in the present, without a thought for the future. Present experiences are always open to interpretation to be reference to the future - by 'long-run perspectives' as well as 'short-run perspectives' (cf. Elliott, 1972, p.85). As I shall go on to describe, students' present perspectives, future plans and their survival strategies may all be closely intertwined.

In some cases, present and future perspectives are congruent. In others short and long-term perspectives conflict - present expediency being seen as inimical to long-term interests and _vice-versa_. In such cases, students may attempt to 'play off' one set of perspectives against another. The degree of congruence between students' long and short-term perspectives must be treated as an empirical issue, and not one to be assumed _a priori_. In the same way, the degree of congruence between 'professional' and 'student' cultures is not something to be decided by _fiat_.

The following section examines some relationships between long-term and short-term perspectives and the construction of a 'student career' as an introduction to students' understanding of segmentation in the medical school.

2.2 : Cliniques and Careers

The Medical School: A Folk Taxonomy

The main area of choice facing the fourth-year student concerns the attachments where he or she will be taught basic medicine and surgery. As already described, the students spend each of the three terms on a different clinical unit, which is responsible for his morning's clinical teaching. For each term the students are asked to complete a list of cliniques in which they would like to work. Although they will not necessarily be able to get into the clinique of their choice, some seventy per cent do so. (This figure is based upon the students responses to my own questionnaire, and also a communication from the Department of Medicine). Thus, although it does not guarantee attachment to a particular unit, a student's statement of preference does significantly affect the chances of a particular placement - and hence the nature of the clinical experience acquired.

In addition to the recurrent choices concerning individual clinique attachments, the students can also choose when they will do their term of surgery. Whether medicine or surgery is taken in the second term is largely a matter of choice, indicated through students' clinique choice for the relevant terms. These problems of choice continue as the student progresses through the medical school - most importantly in selecting where to go for attachments in Final Phase, and where, and in what speciality, to spend 'elective' periods.

For the fourth year student, the range of choice is wide. In medicine, there are twelve units to choose from, and in surgery there are seven, distributed through five hospitals. Each unit enjoys a high degree of autonomy in the arrangments made for undergraduate teaching; as one senior clinician expressed is by describing his

hospital as 'a series of cottage hospitals'. Each unit can therefore develop its own arrangements and approaches to undergraduate teaching, and can offer a unique set of experiences to the student. Through the succession of choices made, and the cliniques attended, each student constructs (or finds constructed for him or her) a well-nigh unique personal career.

This aspect of medical school organization confronts the student and the researcher alike with a problem of understanding. If we are to comprehend the nature of socialization in the medical school, then it is necessary to take close account of the variety of 'learning milieux' within it.[1] It is also necessary to trace how students navigate through the various clinical units, and the nature and range of the experiences which they acquire in them. In parallel with this research problem it is a practical problem for the student to arrive at some understanding of the organizational complexity of the medical school if he is to chart his own way.

It is, therefore, an important part of 'the art and practice of studentmanship' (Olesen and Whittaker, 1968) that students should attempt to acquire and use relevant information about the various medical and surgical cliniques. They need to learn how to plan an undergraduate career, on the basis of such information, which best satisfies their personal and medical plans and projects.

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1. Parlett and Hamilton (1976) define the 'learning milieu' as 'a nexus of cultural, social, institutional, and psychological variables', which '... interact in complicated ways to produce, in each class or course, a unique pattern of circumstances, pressures, customs, opinions and work styles which suffuse the teaching and learning that occur there'.

Olesen and Whittaker define 'studentmanship' in this way:

> 'Studentmanship ... functions to suggest answers to a perpetually problematic issue; how to get through school with the greatest comfort and the least effort, preserving oneself as a person, while at the same time being a success and attaining the necessities for one's future life.

What Olesen and Whittaker have in mind parallels the Kansas study (Becker et al., 1961; Hughes et al., 1962) on the student's setting of their own 'levels and directions of effort'. The Kansas study - and that of Olesen and Whittaker - focus on how students are able to exercise some degree of autonomy and control over their educational fate, by means of collective decisions over what aspects of the syllabus to work on and what degree of effort should be expended. At Edinburgh the students can exercise some autonomy over their passage through the medical school by means of their decisions concerning clinical attachments. These decisions are arrived at in the light of students' shared beliefs and understandings concerning the medical school as an organization and the nature of the clinical units within it. It is a matter of 'student culture'.

> 'This culture grows around those problems shared by all studentstin the school, problems related to their manifest identities as students: the immediate necessity of mastering a vast amount of factual material the more distant threat of failing, the difficulties of dealing with details of work in the hospital, and the peculiarities of certain teachers and departments.
>
> (Becker and Geer, 1960).

The decisions whereby students come to choose their clinical attachments are based almost exclusively on information gained from contacts within the student body. There are no 'official' guidelines available to students for the selection of cliniques: the faculty in no sense publishes a 'consumer guide', or anything of that sort. Indeed, it was something which the students themselves occasionally complained of. My own research became a focus for this feeling - and some students hoped that my 'findings', or something like them, could be made available to give them more detailed and more 'objective' criteria on which to make their decisions. One student in particular approached both faculty staff members and myself in an attempt to produce some such 'grading' of clinical units. He was firmly discouraged by the staff members - who pointed out to him, by way of justification, that in any case, students would still have to attend the 'unpopular' units, so that there would be no ultimate change or benefit accruing from such an exercise. For my part, I, too, was discouraging - as any public information which was sufficiently detailed to serve the students' immediate needs would almost certainly have infringed the confidentiality of my research vis-a-vis the members of staff concerned.

If students are to gain any information on the options available to them, then they must rely on the 'grapevine' as student knowledge and opinion. In the questionnaire item was coded into four degrees of importance, to produce four Likert-type scales, ranging from 'of no importance' to 'of great importance'. The students' responses to these items are detailed in Table 2.1.

Table 2.1 : Relative importance of sources of information for students' selection of clinical attachments.

	Of no importance		Of slight importance		Of moderate importance		Of great importance		Mean rating	N
Students in same year	19	17%	33	29%	37	33%	23	21%	1.58	112
More senior students	24	21%	14	13%	38	34%	36	32%	1.77	111
Members of staff	91	82%	11	10%	7	6%	2	2%	0.28	111
Random choice	45	41%	25	23%	24	22%	15	14%	1.08	109

Table 2.1 shows the extent to which the advice and information available to students comes almost exclusively from among the students themselves.[2] A few students did have access to staff advice. Such access might arise from a student enjoying some sort of 'insider' or privileged position, for instance, those who had relatives or family friends working in the Edinburgh hospitals. One student told me how he was able to draw upon such a source:

> St: I was with Dr. Goodman the first term, and then Dr. Inglis last term.
>
> PA: Were they both first choices?
>
> St: Yes
>
> PA: How did you come to pick them?
>
> St: Eh, well, the first, Dr. Goodman, I asked my brother-in-law, who is a registrar at the Sick Kids (Royal Hospital for Sick Children) and he recommended Dr. Goodman to me. And the second, Dr. Inglis, I picked just from what I'd heard people say.

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2. There is no question that were staff advice available it would be considered and acted on at least to the same extent as student advice.

Although some students may thus gain access to 'inside' information, for the most part it remains a topic for exchange among the students only. Before the students embark on their first clinical year, they have to choose their first clinique. Nobody tells them which units to opt for; if they wish to make an informed decision, then the students have to canvass opinions and ideas as best they can. At this stage in their careers, all members of the year group are equally in the dark. To acquire reliable 'tips', students must look to those who have already been through that part of the organization, and who thus 'know the ropes' (cf. Geer et al., 1968). Students who have completed their fourth year are 'wise' to the various options and strategies open to those who come behind them; they also have first hand, personal experience of at least three of the relevant clinical units.

Although there is little formal contact between students of different years, there is sufficient informal contact for information and advice to filter through to members of the third year who are about to state their preferences for their first clinique, and to the same students subsequently in the course of their fourth year. Such informal contact can arise from a wide range of extra-curricular activities - membership of the Medical Students' Council, of various societies and so on. Since the 'medics' tend to congregate and share accommodation, flat-mates are often drawn from different year-groups, thus providing further channels of communication and exchange of information.

This phenomenon recalls Becker's comments on the nature of 'cohorts' in socialization (Becker, 1964). He emphasizes how the nature of 'batch

processing' of students creates conditions for the collective negotiation of perspectives on careers in the institution. Not only can cohorts work out collective solutions to their recurrent problems, but members of one cohort can readily pass on to the succeeding batch the folk-wisdom that they themselves may have developed in the course of their own experiences. Wheeler (1966) refers to this as a pattern of 'serial' socialization, in which a recruit has been preceded by others who can instruct him about the setting. In Wheeler's typology of socialization settings, the medical school is therefore both 'serial' (as opposed to 'disjunctive') and 'collective' (as opposed to 'individual'). Most educational organizations such as schools, universities and professional training schools, are of this type, as well as 'total institutions' such as prisons and mental hospitals (cf. Goffman, 1961; Sykes, 1958; Wieder, 1974).

It is through these collective processes of information exchange and transmission that succession is ensured from generation to generation of students.[3] They pass on the accumulated wisdom and 'folkways' (Summer, 1907) of the student body. In the Edinburgh medical school, each new cohort of students reproduced the collective 'image' of the medical school, and in so doing they draw on the advice passed down from earlier cohorts. The older students can look back and reflect: 'What did I do?', 'What would I have done then had I known what I know now?' and pass on the conclusions of such reflections. As Wheeler (1966) comments, the 'collective-serial' mode of socialization and recruitment is a conservative one. When previous incumbents are

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3. In a more individualized context, Miller (1966; 1970) had described how interns have to 'learn the ropes' by means of informal exchanges with other who have recently passed through the setting (the resident doctors) or those who are currently involved in it (the students attached to the wards).

available to give advice, they can pass on previous solutions and accumulated opinion with the authority of experience and seniority. The alternative of disjunctive types tends to throw the recruits on their own resources far more. They may thus negotiate novel solutions to their shared problems.

This transmission of student opinion can be illustrated in the following extracts from my notes. On the first day in the field I talked to two students - a boy and a girl - about how they had come to find themselves where they were:

> They said that their criteria for choosing a clinique had been based on 'chatting up' some older students, who had recommended 'good teaching cliniques'. They themselves had little idea of how to decide.
>
> Going down to the hospital on the coach I sat next to Alan I asked him what attachment he was in, and whether it was the unit of his choice. He was in Dr. Morgan's group; this had been his first choice and he had specifically wanted to be in that hospital. I asked him why, and he told me he had decided from talking to friends in higher years, particularly a flat-mate now in his fifth year ...
>
> Whilst I was talking to Jim MacEwan, he stopped to talk to a girl student who was, I gathered, in either her fifth year or Final Phase. He asked her which surgical attachment he should try to get into for the third term. She advised him to try Mr. Elliot's Unit, and one at (peripheral') Hospital; she advised him strongly against applying for Mr. Urquhart's clinique.
>
> As I had lunch with the students, I overheard this same girl telling someone else not to apply for the last unit, because, she said, you get no teaching there at all.

On the basis of such gleanings, then, the students attempt to select cliniques most suited to them. The reputations that different units enjoy vary considerably, and their popularity among fourth year students differs appreciably. While some units are greatly oversubscribed, others receive few nominations as first choices, and their numbers are made up from the disappointed applicants to popular units. On the questionnaire I asked the students to indicate the three units they had been to during the year, and whether they had been their preferred attachments. Overall, 66 per cent of all attachments had been first choices; but some units were clearly far more popular than others. Whilst it would be unnecessary and invidious to list all the individual units, the overall range of choices can be indicated. In medicine, at one extreme, <u>all</u> the students who had spent a term on one unit had made it their first choice; at the opposite extreme, there was one unit where only one out of twelve students had made it their first preference. In surgery, the contrast was rather less extreme: for the most popular, nineteen students out of twenty had made it their first choice; for the least popular unit, three out of fourteen.

However, although there are differences in popularity among the units, there is no <u>single</u> evaluative dimension according to which students attempt to pick their way through the range of options. For the fourth year students there are a number of ways in which they classify the relevant units. To begin with, the students operate with a simple map of the medical school as an academic and medical organization, and they employ several binary classifications to group the various units together.

A major discrimination is that between the two specialities the students encounter over the year - medicine and surgery. Throughout the year, they draw parallels and contrasts between the two types of clinical attachment, and it provides part of the framework whereby collective perspectives are generated and passed on. In addition, students regard as significant the hospital within which units are located. Whilst they attach some significance to the individual hospitals and their wards, the students operate a further level of discrimination in this context. They divide the hospitals into two types - which they label 'central' and 'peripheral'. These two terms are widely used in describing hospitals, and their application is a relative one - a hospital which is regarded as 'central' in one context may be described as 'peripheral' in another. Thus when students and housemen are talking about hospital appointments, all the major teaching hospitals in the city of Edinburgh may be categorized as 'central'; the 'periphery' in that context would normally be taken to comprise the more outlying hospitals in the region - in Falkirk or the Lothians. But the students also apply the distinction within the Edinburgh hospitals. They refer to the Royal Infirmary as 'central', and to the other hospitals (Western General, Eastern General, Leith, etc.) as the 'peripheral' hospitals. (More often they refer to the 'periphery' and 'the Royal' since that hospital alone occupies the 'centre'). The distinction between 'centre' and 'periphery' is held to make a difference to the nature of units.

A further distinction to be drawn is that made between 'professorial' and 'non-professorial' units. As their title implies, the head of the former holds a University chair. The remaining clinical staff are employed by the University also, and they hold honorary appointments as

N.H.S. consultants (senior lecturers) and registrars (lecturers). Non-professorial units are staffed by doctors employed by the N.H.S. In medicine there are three professorial units (including that associated with the University's Department of Therapeutics) of which one is located in the Western General Hospital, and the others in the Royal Infirmary. In surgery, there are two - both located in 'the Royal'. Students draw distinctions between 'professorial' and 'non-professorial' units in choosing cliniques and in plotting their career - paths.

Together these various levels of discrimination furnish the students with a taxonomy of clinical units relevant to training in the first clinical year. This 'map' of the medical school - or part of it, at any rate - is presented in Figure 2.1

Figure 2.1 Here

It must be emphasized that this is not intended to represent a chart of the 'formal' organization of the medical school.[4] Certainly no 'official' description of these units would employ the labels 'central' and 'peripheral'. The connotations of these terms are evaluative (implying greater importance and prestige to the 'centre') and would not be used in the formal descriptions of parts of the organization. The notion of a 'centre' and a 'periphery' does not tally with the official philosophy of the medical school, which stresses complementary functions for the hospitals, and parity of prestige between them. However, the labels are those which were

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4. It should rather be thought of as a 'folk taxonomy' (cf. Conklin, 1955; Goodenough, 1956; Frake, 1961).

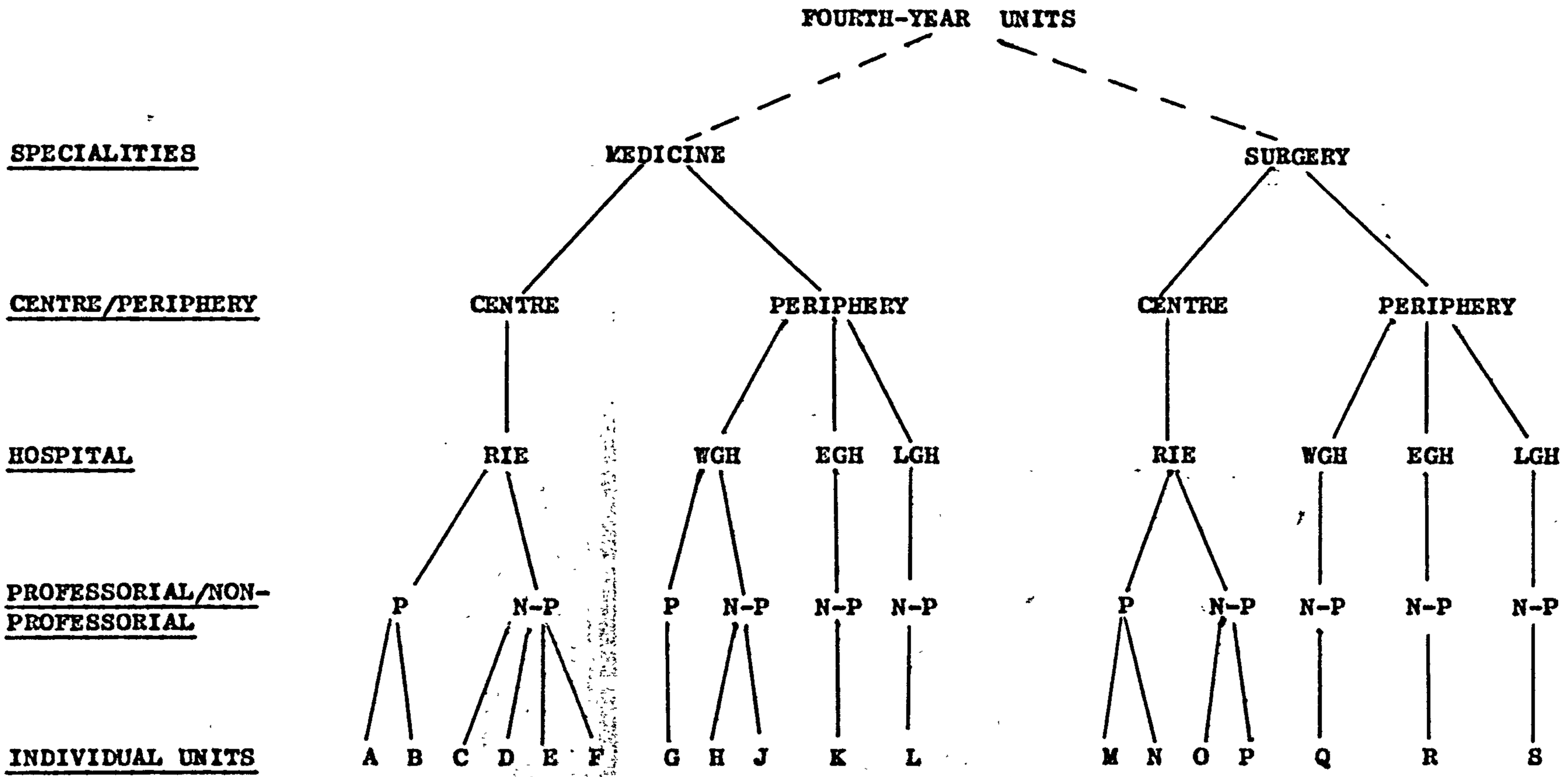

FIGURE 2.1 : SEMANTICS OF SEGMENTATION IN THE MEDICAL SCHOOL

most commonly used by the students themselves; to that extent they encapsulate their perceptions of the internal organization of the medical school. Whatever the official view, the students themselves do not subscribe to the belief of 'parity of esteem' between the hospitals. They have no doubts over making such comparisons; they are also convinced that the clinical staff members also engage in such evaluations.

Although students recognise unique characteristics of individual clinical attachments and their staff members, they also organize their perceptions and typifications in terms of this overall pattern. On the basis of these dimensions they attribute a degree of similarity to the types of unit identified. The students may either offer generalizations in terms of one single discrimination (e.g., 'all surgical units are....'; 'all the peripheral units are....') or in terms of combinations of two, or even three. On most occasions, only one discrimination is made at a time; the overall pattern of typifications remains implicit, rather than being invoked in its totality on all occasions. On the basis of these typifications, students seek out the cliniques of their choice, and thus attempt to create for themselves a personal career path through the organization. They also attempt to relate the presumed characteristics of the various cliniques to their own emergent careers, to their past experiences, and their orientations for the future.

Future Perspectives and Deferred Gratification

In addition to the need for the immediate choice of fourth-year units, there may be significant considerations to be born in mind concerning future contingencies. This arises from the element of

'patronage' in the organization of medical careers (cf. Hall, 1948), which is of crucial relevance at the end of the students' undergraduate course, when they must seek posts as house-physicians and house-surgeons during their 'pre-registration' year.

The particular hospitals and clinical firms where a student undertakes this year of work can be of considerable importance in the development of his or her subsequent career and attainment within medicine. To complete a house job successfully in a teaching hospital which enjoys high prestige is an important first step on the ladder of a successful career in the medical profession. Similarly, to be employed in the 'firm' of a well-known and important consultant is an important career contingency.

For a student with any degree of ambition, then, the prospect of obtaining a favourable house job in one of the popular firms in an Edinburgh teaching hospital is a consideration to be borne in mind. It may be seen as an important goal to be attained at the end of the student's undergraduate career. As Ferris points out:

> Before his name goes permanently on the Medical Register, the just-qualified doctor must work for a year in one or more hospitals of his choice; the first choice is likely to be the one where he trained, and the first rung of the ladder is to become a houseman at his own hospital. If he succeeds (and only a minority do), the climber is faced with ten or twenty years of hospital jobs....
>
> (Ferris, 1967, p.64).

Not all the fourth-year students actively consider their preregistration year, but of those who do the majority believe that it

is desirable to complete at least one of the house-jobs in one of Edinburgh's hospitals. To leave and go elsewhere might look less well in the future: it might suggest that one has not been considered good enough to be offered a post by any of the clinicians who have a close personal knowledge of one's work as a student. One of the male students I talked to articulated this concern, and I summarised our conversation in my fieldnotes:

> For his pre-registration year he would probably stay in Edinburgh, and at the moment the (peripheral) hospital was an appealing proposition. Staying in Edinburgh was important - otherwise, when one is applying for jobs, people would ask you why you didn't do a house-job in your teaching area. On the whole he thought this was unfortunate, as he would like to move about more freely.... He said that when consultants are looking for housemen to took after their patients they will naturally prefer the student they know; they will therefore be most likely to take someone who has worked under them for a Final Phase attachment. He added, 'Maybe its just an old-boy tradition'. He repeated that one's Final Phase attachments are important for where you do your house job... Some people, he told me, even get their house jobs fixed very early - even immediately after their summer clerkships. He also told me that there is more care taken over Final Phase attachments than in choosing junior cliniques.

The selection of successful candidates for house jobs, as the students see it, depends very largely on their personal relationships with the consultant staff of their Final Phase units. The jobs are seen as being largely in the hands of the chief of the firm, and the successful application for a job could depend on a student's being 'well in' with the clinicians concerned.

Future success in medicine is therefore seen to depend largely on creating a good impression with a consultant under whom one would like to train during one's first postgraduate year - and perhaps subsequently, should one become a senior house officer, junior registrar and so on. In other words, the most advantageous transition to postgraduate training is seen by the students as being a process of 'sponsored mobility' (Turner, 1960). In order to maximise one's chances of such sponsorship and recruitment, it may be necessary to manage one's 'self-presentation' with some care (cf. Goffman, 1971). 'Impression-management' in the part of the students can therefore be geared towards creating a favourable impression with staff members, as prospective sponsors and professional superiors. For instance, after a conversation with two students, (one male, one female), I noted:

> They both agreed that getting on in a speciality depended on what one of them called 'the coefficient between ability and getting on with the clinical staff'. You can, one of them said, be a surgeon of moderate ability and yet be successful because 'you happen to click with a surgeon', or you can be a very good surgeon and fail to get on because of poor relations with members of staff.

These students were expecting this 'coefficient' to be of importance in their later experiences in the medical school, and in their subsequent careers, should they find themselves committed to a career in a hospital speciality. Another male student I interviewed was similarly explicit about the process, although he wished to disassociate himself from the practice of impression-management:

> St. People feel it's time to impress people. There's a lot of this goes on - I don't really like it.
>
> P.A. What do people do?
>
> St. The occasional 'sir', being nice, not being obstreperous, being benign and harmless.

He added that he suspected that a lot of clinicians could 'see through' this sort of impression management on the students' part, so that it was not always totally effective. He also stressed that it was not really an effective strategy at the fourth-year stage, being more relevant for the students in their Final Phase.

> St. You try to pick a Final Phase attachment where you want to do a homme job, and then you turn on the charm.

Just as this student sought to distance himself from these practices, so do many of his peers. An awareness of this career-strategy is admitted to by many students, but it is something that is generally attributed to others; it is 'something that goes on' rather than 'something we do'. Students are reticent about appearing over-keen or 'pushy' in the eyes of the fellow members of the clinique. During the fourth year, competition for attention and recognition is not pressing. To push oneself forward at this stage may be to risk contravention of the students' collective levels and directions of effort. But as the following extract from my fieldnotes suggests, this consideration may be oriented to by students in their interaction with clinicians:

> The group were discussing whether or not they were going to go and hear their chief, who was giving that week's clinical lecture for the final hour

> that morning. Roy Bateson was in a bad mood and seemed genuinely unwilling to go along. One of his fellow students said he reckoned that it all depended on whether he wanted to 'keep in' with Dr. Crosbie, with an eye to his future career.

The implication of this was that the student's absence from the lecture might well be noted by the chief, and might be remembered and held against him subsequently. This group of students were in fact approaching the matter in a fairly light-hearted way. Nevertheless, they did appear to be voicing a genuine concern over career-management.

One student in particular drew attention to the importance of the 'informal' criteria which students may have to bear in mind in thinking about their careers, and their implications for practice beyond qualification. Our conversation had turned to why people opt for an 'honours year':

St. I think the major reason people go into them is that they realise that it'll help them get a job later.

P.A. Is that true?

St. Well I think, I mean, we're all churned out at the same level: you know there's no classes in the M.B. Ch.B., so I think if you've got other things that you can add on, like honours Pathology or something, it'll help you get a good post. There's a lot of other ways of doing it though. One of the most recent ones I've heard of in Final Phase if you do a locum - a week or so - it gets you well known and well liked. That's when you do it well, of course; if you kill a patient they're not going to be too happy.

P.A. Are there any other things you can do?

St. Well, you can do what John Sullivan did - become editor of Synapse, he's doing a locum and he's also got honours Pharmacology: people like that are made. And he also got a distinction in his Psychiatry finals. He's wanting to be a Psychiatrist and he'll have no trouble.

As this student so well describes, there is a recurrent problem facing the career-conscious student. As one of a large number of students he finds himself relatively anonymous. Few can reasonably expect to be outstanding academically and to impress members of staff on their examination performances alone. Yet the allocation of first hospital posts is often felt to depend upon the personal choice of the consultants on the various wards. As one student told me, 'It depends largely on how many people you impress' as to how successful a student is in his or her applications for house posts. As is apparent in the extracts I have already quoted, students do not deny the relevance of academic ability and qualifications (honours degrees and distinctions in examinations are recognised as depending upon intellectual ability). Rather, they suggest that in themselves they may not be sufficient conditions for success, however necessary. Ability must be matched by careful career management and some success in 'fronting' (cf. Olesen and Whittaker, 1968, p.173 ff.). For students of average or below average academic attainment in the medical school, then 'fronting' will be their only recourse.

This is not the whole story, however. At the time of the fieldwork, the fourth-year students entertained this view of advancement in conjunction with a belief in 'impersonal' and

'bureaucratised' modes of job allocation. Students would describe to me how the appointment of housemen was based on a computerised system, whereby students could state their own preferences. A matching programme would marry student preferences to units' requirements. However, the students who talked of this system stated that consultants could nevertheless have their pick of the students, and despite the mediation of the computer, the process was still thought of as one of social selection and recruitment. Indeed, competing views of the process could be expressed almost in the same breath; this can be illustrated in the following extract from an interview with a male student:

> I've thought about house jobs all right... You are selected for house jobs via a computer - there's no interview for a house job. So presumably the better your academic performance, the better your job chances.... If you work on a unit in Final Phase and get on with people, that's one way of getting house jobs. That's the value of choosing your Final Phase attachments well.

This was also well expressed by another of the male students I talked with:

> When I asked about house jobs he said that 'you just apply' to the various units. He said they had been told it was all done by punch cards, 'but no-one will say what's punched on them'.... I asked if he thought people make an effort to be noticed by the consultants. He said he didn't think that consultants were interested until the fifth year, when one is left more with the patients.

The implication of his remark on the 'punch-cards' was that despite

the system, the criteria for selection were not explicit - allowing for personal factors and 'informal' methods of social selection to operate.

The co-presence of these two versions of recruitment in the students' beliefs suggest a degree of ambivalence towards the issue. On the one hand, they recognise that there are formalised mechanisms for job allocation in the hospitals, whilst on the other hand, they also entertain the possibility of personal patronage on the part of the consultant clinicians. The first version emphasises a model of 'contest' mobility, where success is achieved through the attainment of formal criteria and qualifications, whilst the latter draws on a model of 'sponsored' mobility (Turner, 1960). There is nothing strange in the confusion of these beliefs in the students' shared perspectives. As Schutz (1964) points out, commonsense and mundane reasoning is '(1) incoherent, (2) only partially clear, and (3) not at all free from contradictions'. Clarity and consistency are not required, since such commonsense serves essentially practical purposes. Insofar as 'recipes' of knowledge 'work' for such purposes, then further clarification or precision need not be sought. Thus the presence of discrepancies in students' beliefs does not necessarily induce 'cognitive dissonance' (Festinger, 1957).

The apparent inconsistencies in opinions regarding house appointments permit the students to combine theories of 'personal' and 'impersonal' causation.[5] At one and the same time, they can attempt

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5. The nature of the students' belief system can be likened to that of 'primitive belief systems', in their combination of personal and impersonal notions of agency and causation. (Evans-Pritchard, 1936; Horton, 1967; Winch, 1964). As in such systems of thought, internal inconsistencies are not perceived as such, but rather render the beliefs themselves unfalsifiable; they can be used to account for both success and failure.

to take personal responsibility for their own careers, and can invoke factors over which they have no control. On the one hand, the students can use a theory of 'sponsored mobility' to plan and justify actions whereby they actively seek to gain favour and promote their own selection for jobs (through judicious selection of clinical attachments and impression-management). On the other hand, they recognise that not all the students can obtain the appointments they want. Hence they can invoke the 'impersonal' mode of selection to take account of possible 'failure' on their part. By the same token, if they feel that they have the requisite qualifications, academically speaking, they may attribute failure or uncertainty to the vagaries of consultants' patronage.

In either event, the co-presence of the two methods of explanation allows the students to formulate plans and accounts of their own careers in such a way as to accommodate notions of success and failure. They can seek to maximise their chances of success, while recognising that it is never certain. The notion gap between students' own efforts and the outcome of their actions. 'Luck' and 'bad luck' account for the fact that students are not able to exercise complete control over their own fates. One female student I interviewed incorporated this view into her account of students' strategies of career-management.

P.A. Have you got any idea of where you would like to go for Final Phase?

St. Er, well, I'm not quite sure yet actually, but I have a few ideas but not - I'm not exactly certain. It's a question of asking people who are going round at the moment what it's like. The main thing I think to find out is what the junior staff are like 'cos they're the ones

you come into contact with most when you're in Final Phase what it's like. I was talking to some people who were in Final Phase last year and they gave me some ideas on which are the good places to go.

P.A. Is it important to choose somewhere good for Final Phase?

St. Well when it comes to applying for house jobs, yes, 'cos they're more likely to know if you've been with them for Final Phase. Not that it... you can apply for units you haven't been on in fourth year, but if you're on in Final Phase I think you get more of a chance.

P.A. Is this thesort of thing that most people take into consideration in picking their units?

St. It's a list of preferences that you get, so whether you get on it or not depends, well really, on who else ah has applied and how popular it is. It's all a matter of luck - that's all there is to it.

One student went so far as to deny all belief in career-management as a conscious strategy and proclaimed a belief in 'luck' alone, but his was a minority view, and such sentiments appear only once in my interviews and fieldnotes:

> He is not convinced by arguments about Final Phase... He doesn't think ahead to Final Phase a lot - he thinks it is 'just a matter of luck. As far as I know you can't choose Final Phase attachments....'

Whilst these considerations 'filter down' to students in the fourth year, the topic of house jobs impinges on their immediate plans in a rather indirect way. To be precise, it informs a strategy of <u>avoiding</u> certain units rather than seeking them out. The rationality

for this procedure is derived from a simple rule. That is, that in the normal run of events, students are not admitted to units for their Final Phase attachments if they have already been there for their fourth-year teaching. In other words, attachment to a clinical unit for a fourth-year clinique will normally preclude attachment to that same unit in the student's last year. The students' strategies of clinique choice are (or may be) formulated with this in mind.

There may, therefore, be some conflict in students' decision-making. They need to reconcile the dilemma of opting directly for popular and attractive units, and deliberately avoiding them in the hope of being able to obtain an attachment in one or more of them in Final Phase (when the 'pay off' may be of greater and more lasting significance). In other words, a strongly fancied unit may not be put down as a preference, but may be 'saved up' for the later part of the undergraduate course. During the closing weeks of my second term's observation, for instance, I noted students employing this tactic in coming to decisions about clinique choices for the coming term:

> I overheard a fifth-year girl giving another girl advice about possible attachments to try for in her term of surgery. She named two of these possible cliniques, but added that her friend should do her best to keep one of them back for her Final Phase attachment.

Similarly, in discussing how she had chosen her first medical unit, one of the female students told me that in doing so, she had 'done a bit of asking around' with students in the year above her. They had told her that the unit she picked would offer her 'a good start'.

in clinical medicine.

This aspect of clinique choice was also displayed by other students during the year:

> Gerald Kennedy had deliberately steered clear of (peripheral) Hospital, so that for Final Phase his chances are good for getting an attachment there. He explained that you have to do eight weeks in the Royal Infirmary anyway, so it is a good idea to keep options open for the peripheral units. His general planning is to be in the (peripheral) hospital, as he would like to get a house job there.... The _____ Hospital is 'no good to anybody', and as for the _____ Hospital, 'you have to be a certain type - beer-swilling and back-slapping'.

One of the women students I interviewed also articulated this concern:

> P.A. How did you pick (her present unit)?
>
> St. It was mainly... going on previous reports. The fact that I didn't want to come to the Royal until the last term, but I didn't want to come to the (peripheral) again, 'cos I wanted to leave various options open for Final Phase. It's all a question of fiddling things, isn't it? You know - people who were down there before said it was a good unit.

If students should fail to obtain an attachment to the units of their preference in the first clinical year, or if they discover that a chosen unit does not suit them, or is not all its reputation led them to expect, then the perspective of 'deferred gradification' can be turned to good account. While present experience may be

may be judged unsatisfactory, students can reconcile themselves to this by the thought that at least it is now 'out of the way'. The rule against returning to a fourth-year unit can therefore be seen to protect the student against having to repeat the experience. This can be illustrated from my fieldnotes. During a coffee-time conversation between two Final Phase students and a few fourth-years, I heard them talking about this aspect of student careers. They had just been taught by the chief of their firm, who has been particularly severe and critical with one of the older students:

> A senior, who had been rather picked on by Dr. Bruton, said he thought he had been like that because he hadn't wanted Dr. Burton's house job. The conversation turned to house jobs in general. One of the seniors told the fourth-years that one wants to end up in the Royal for one's Final Phase attachment (as they had done). The two seniors were in agreement that the fourth-year students were lucky in having got Dr. Burton's attachment 'out of the way' early in the course. John Cartwight (one of the fourth-years) told them that Dr. Burton's firm had been his third choice for medicine, and he had wanted to do surgery this term anyway.

In such a fashion, apparently 'unlucky' students in the fourth year can 'cool out' their own apparent lack of success. The otherwise poor start of finding oneself on an unpopular clinique can be reinterpreted as a fortunate contingency - as an instance of 'luck' rather than the reverse. In this way the appearance of a favourable and rational career pattern can be salvaged and reassembled by the employment of the 'deferred gratification' perspective on cliniques and clinique choices.

2.3 : Varieties of Clinical Experience

The choice and evaluation of clinical attachments is a major preoccupation of students in their first year of clinical studies. Faced with this shared problem they generate a number of common 'perspectives'. These beliefs embody the view that different attachments offer the student distinctive medical and educational experiences, which are in turn differentially evaluated by the students. In this section the nature of these discriminations is explored further - that is, I discuss the criteria by which students judge cliniques. The emphasis in the discussion is placed on the general pattern of student opinions and beliefs. In the following section the students use of the criteria to characterise individual units in medicine and surgery, and in the 'centre' and the 'periphery' is discussed.

Staff-student relationships.

In the medical school, as in other educational milieux, the relationships between staff and students form an important element in the students' adjudication of the 'atmosphere' in particular learning environments. However, the relationships in medical school have certain specific features worthy of note. In the first place, the clinical 'teachers' are themselves practitioners, and are therefore also likely to be superiors in the students' later work experience. Even if the staff are not seen as possible 'hirers and firers', they may be taken to stand for future superiors in the professional hierarchy.

Similarly the 'reality-like' nature of clinical instruction

means that the teacher-student relationship may be taken by both sides as approximating to a working relationship. From both points of view the relationship between students and their clinical instructors thus takes on a particular significance. Whilst they are attached to a specific clinical firm, students may have close and regular contact with individual clinicians - being taught by them as often as three or four times a week. Such teaching often takes place in a charged atmosphere. That is, the small-group teaching sessions on the wards can be quite demanding on individual students. They are potentially 'in play' for the duration of the teaching session and may be called on to 'perform' before their peers, a clinician, and a patient, if they are asked to take a history and carry out an examination. They may be 'grilled' on their clinical knowledge - also in a semi-public fashion. Whilst this 'on trial' aspect should not be exaggerated, it can add to the significance students attach to their personal relationships with their clinical teachers. In such a potentially threatening context the 'atmosphere' which is created and sustained during teaching can become a critical variable for students. It is possible for a clinician to make life extremely uncomfortable for students - they have available the technique of 'showing up' the students in front of an audience of patients and peers. Students are potentially vulnerable to the weapons of sarcasm, humiliation and degradation - powerful methods of social control in educational milieux as Woods (1975) recently demonstrated. Even when such 'showing up' is unintentional, and not directed towards social control and discipline, it can render the student-teacher interaction a tense one.

Students must also be concerned with their incorporation and involvement into the 'team' of clinical staff on the wards. As I have

pointed out, they have crossed the divide that separates the world of the layman, or the world of the paramedical worker, from the world of the medical professional. In the course of their clinical work the students' viewpoint is the doctors' viewpoint. They do not interact formally with other workers in the clinical setting. Yet the students are not themselves doctors. They do not perform the same tasks, do not have the same responsibilities, the same status or functions. The students' position is an ambiguous one, poised somewhat uncertainly between the 'lay' world of the patients, the 'medical' world of the doctors and the worlds of the other medical workers. Their involvement in the ward is temporary (only one term) and part-time (mornings only). Since their place in the hierarchy of doctors is not automatic, more secure, the precise nature of students' relations with their clinical instructors can assume a critical significance in the development of their self-perceptions and their evaluation of clinical 'atmosphere'.

The fourth-years therefore pay close attention to their position vis-a-vis the doctors on their attachments. There are two closely related dimensions to their perceptions on this topic. The first concerns the degree of personal contact and the closeness of social relationship encountered. Although students are in close proximity to the clinicians teaching can nevertheless be anonymous and impersonal. Especially in units where a large number of clinicians have responsibility for the teaching, students may find that they remain unknown as individuals. The learning of names by the clinicians is one 'unobtrusive measure' (cf. Webb et al., 1966), that the student groups themselves use to gauge this feature. Thus, in the course of an unfavourable characterisation of a surgical unit, one student claimed: 'Mr. Williams is the only one who's bothered to learn names';

By contrast the feeling was that the other clinicians had not 'bothered', or found it necessary to identify the students by name.

A major part of the students' views on staff-student relationships is their perception of the doctors' interest in teaching them. They recognise that clinical teaching is only one of a number of calls upon a surgeon's or physician's time; routine ward-work with patients, research and administration are all facets of the clinician's role. They are all visible to the students, who recognise the competing pressures on their teachers' allocation of time and energy. For the junior staff members, the students also recognise that they have their own postgraduate training to manage - something that becomes particularly obvious when the wards are being used for 'Membership' or 'Fellowship' 'mock' examinations. Students feel that the degree of commitment displayed towards the teaching of fourth-year students varies considerably from doctor to doctor and from unit to unit.

Students therefore employ this notion in their monitoring of cliniques and their 'atmosphere'. For instance -

P.A. What sort of thing do you go on?

St. Well, the report of the teaching; and sort of how organised it is and how interested they seem in teaching the students. 'Cos I mean some units they don't - they'd rather get on with the ward-work rather than teach students, and in others they're very pleased to see you: teaching is something they quite enjoy - probably because it provides them with a bit of amusement as well when you do something wrong. No - it depends very much on that .....

This is used to discriminate between medicine and surgery - and it is a frequent criticism of surgeons' teaching that they often appear to be 'uninterested' and 'uninvolved' in their work with the junior students. Such comparative judgements are revealed in the following comments from fieldnotes, interviews and questionnaires:

> Both medicine wards have been very good, though emotionally traumatic; survery was poor - the staff seemed very uninterested. (Interview)

> On (a surgical unit) I don't think I really got to know the staff, or that they take very much interest in us, in comparison with the last place (a medical unit). (Interview)

> Jane told me she had applied to wards ____ and ____: but she had been down there with Frances (her flatmate and another fourth year medical student) to see one of the surgeons there. He had said, 'Oh, do we have to do all that teaching again?' She obviously took this to indicate a lack of interest in the teaching programme. She added that she understood surgeons had been telling the students to go away and read things up in the Medical Reading Room, rather than teaching them. (Fieldnotes)

The nature of staff-student relationships is also used to distinguish between units in the 'centre' and the 'periphery'. The clinical teachers at the 'centre' - The Royal Infirmary - are thought, on the whole, to demand a greater degree of formality and to produce greater social distance between themselves and the students. The impression current among the fourth years is that senior clinicians in 'central' units especially encouraged such formality and tend towards an authoritarian approach to their junior students. The clinicians in the other hospitals are thought to encourage a more relaxed atmosphere.

The following extracts from interviews and questionnaires illustrate the point:

> I would recommend any student beginning clinical medicine or surgery to begin in the Northern Group (i.e. 'periphery'). The teaching staff there make an effort to know the students individually and socially and obviously enjoy teaching. These features appear to me to be universal throughout the Northern Group and non-existent in the R.I.E., where there is a stiff, formal attitude which impedes progress.

> In the first term, I was on a medical unit at ('peripheral') Hospital, under Dr. Horton, who was (a) very interested in teaching himself, which is very unusual for a consultant, (b) got to know us all as individuals. This unit was very good and the ('peripheral' hospital) seemed a very friendly place - much less austere and 'snobbish' than the R.I.E.

> Having been at the (peripheral) Hospital as well as the R.I.E., my general impression has been that the staff in peripheral hospitals are much more interested in their jobs and the teaching of clinical subjects to students, whilst in the 'Royal', junior staff are either disillusioned or ladder-climbing, and the senior staff somewhat out of touch with students.

> The (peripheral) hospital was very friendly, there was no 'all bow, here comes the consultant' - everybody seemed to know everybody else and there didn't seem as much rivalry there as there is up here (R.I.E) . It was there, obviously but not to as great an extent, I don't think. The (peripheral) hasn't got the name and prestige value as the Royal has, perhaps.

P.A. Do you find the Infirmary a less friendly place then?

St. s Its less friendly, as far as the consultants and senior registrar levels go, but the rest of them seem alright - the housemen, S.H.O.'s and things like that

R.I.E. teaching by consultants was very strained: one felt that they thought it was a very great concession to be there. R.I.E. registrars and housemen were very friendly. At the (peripheral) Hospital the consultants and housemen and registrars were very helpful and friendly. Much better atmosphere in the (peripheral) Hospital.

I don't like the atmosphere in the Royal - they just don't take an interest. Unless I've been incredibly lucky, I think the people in the Northern Group are more interested.

John feels that at the Royal there is little involvement in the unit - 'you just go in, get taught and that's it. You don't get to know the life of the ward'. He contrasted this with a peripheral hospital, where they had had regular discussions about how they were getting on with the course, to discuss 'interesting patients' and so on.... He complained that on the present unit, nobody had ever invited them to go to waiting nights. Although, he added, you didn't learn much about medical science on waiting nights, you did learn a lot about the working of the hospital, and about everyone's relative position.

The 'friendliness' and 'colleagueship' which students recognise as present or absent in their relations with clinicians is also felt to be a reflection of the nature of social interaction among the ward personnel and between members of different wards. As some of the student comments have already shown, the 'central' units are seen as 'competitive' in ethos. Although students report good relationships with the junior staff in the Royal Infirmary, they also feel that these younger physicians and surgeons are acutely aware of their own career contingencies. The Infirmary is seen as the segment of the medical school enjoying the highest prestige, and thus attracting the ablest and most ambitious young doctors. The students feel that these doctors are engaged in a

'rat race' (as many phrased it) - competing for recognition, jealous of each other's research productivity, and jostling for the consultants' attention.[1] These student perspectives can be seen in this comment recorded by one girl at the end of the questionnaire:

> (central medical unit) Very indifferent teaching. Frequently the person scheduled to teach failed to turn up.
> (central surgical unit) a little less one-upmanship amongst the staff would improve this unit. Teaching generally of a high standard - dislike of students equally evident.
> (central / medical unit) - The best ward this year. Have learnt all my medicine and clinical examination from here. Staff have actually bothered to learn our names! Highly recommended!

This factor in clinique 'atmosphere' is also felt to apply to relationships between more senior staff members. Thus in an informal discussion with a group of students one morning, I noted the following:

> They both contrasted the 'atmosphere' of the Royal with that of other hospitals: they suggested that I ought to go to Dr. Maxwell's unit for a complete contrast to the Royal firms. One difference they described to me was the 'fact' that the consultants in the 'peripheral' hospitals are willing to speak to one another, whereas the consultants in the Royal do not speak to each other. They do not discuss their cases in the Royal, except, they said, possibly to 'gloat' over having a patient with some rare complaint or other.

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1. The students' beliefs on this score are quite well grounded. There is indeed a great deal of competition for promotion within such popular hospital specialities as medicine and surgery.

Relations with Patients

The third component of the interpersonal nature of clinique 'atmosphere' is the students' perception of the relationship between their clinical instructors and their own patients. For the students, contact with patients is an important part of their own developing experience of medicine. They are therefore concerned to monitor not only their own patient-contacts, but also those of their teachers (cf. Dowling and Cotsonas, 1964). In particular, they employ the criterion of 'humanity' versus 'callousness' in the course of formulating their evaluations.

Amongst other things, the students use this discrimination to distinguish between the distinctive characteristics of their experiences in medicine and surgery. It is a common criticism of surgery that the observed relationships between the surgeons and their patients are not as satisfying - from the students' viewpoint - as those pertaining between physicians and their patients.

> Had I started in the surgical unit I think I would have been thoroughly put off - as it is I'm very unimpressed with surgeons. In fact, I started on an excellent medical unit which I enjoyed very much, and found the physicians had a far better attitude to their patients than the surgeons.
>
> (Surgeons') attitude to the patients is quite different - especially the senior registrar: more callous, less considerate of the patient. They'll talk about things in front of the patient, which I think really worry them, and they don't seem to bother much. One day we went to see a patient and she didn't look too great. She'd had an operation and she was on a bedpan and we all crowded in and they took her off that in front of twelve of us - and then she was sick. We proceeded to stand round the bed for the next twenty minutes.

They (surgeons) seem a very callous lot. They take you round patients that have just come back from having an operation and they're being sick and this kind of thing. They don't bother at all - don't tell us to go away and wait until the patient recovers. Haven't you noticed that? And in the out-patients they get people in and strip them naked and leave them on the couch for about twenty minutes ... In medicine, well - you see - you had more personal contact with the patients.

I always get the impression in surgery that they're distracted away from the patient. The patient's an object not a person.

The surgeons - they're dealing with localised disease and therefore they tend to focus down on a leg or abdomen or something - but the medical side treat their patients <u>as</u> patients much more.

Their (physicians') attitude to patients was very humane, very much more so than the surgeons'.

The surgeons are very business-like, with no time for the chit-chat. In medicine they took time, even if no more than a minute, to talk with the patients about general things. They all knew the patients on the medical wards, and the patients knew the staff quite well.

'I find the surgeons' approach much more superficial in talking to patients. They're not as thorough as medical people would like'.

'They see little of their patients... only once or twice perhaps. They only see patients when they have been diagnosed by other people'. He saw surgery more as a 'technique', with 'less of the Sherlock Homes'.

In such views, the surgeons came over to the students as more 'callous' - more 'brusque' and off-hand with their patients. Students tend to see them as uninvolved in the interpersonal aspects of medical care, and as approaching their clinical work with a much more limited focus than the physicians. They are often seen as concentrating more on the purely physical aspect of patient care - with the technicalities of surgery itself - and less with the care and nurturance of the 'whole' patient. What precisely might constitute 'whole patient' care, or the ideal approach to the patient 'as a person' rather than as 'a case' is never specified by the students in their stereotypes (indeed, it is in the nature of such typifications that they should not be very specific in nature). Nevertheless, they are strongly held by many of the fourth-year students. Such views are by no means universal, however, and a minority reacted <u>against</u> these <u>idees recues</u> about the nature of surgical practice.

> Last term I thought that surgeons were not interested in patients, but just wheel them into theatre. But the surgeons in fact are just the opposite; there's more scope in surgery. You don't just give them pills - you see pathology at close hand.

> I have changed my ideas considerably. Last term I got the idea that the surgeons are impersonal, brutal, and didn't know the names of their patients - that they were just ten centimetres of duodenum on the operating table. I'd also heard they were unpleasant to the students... It's untrue, and a bit thick.

There is also a feeling that the clinicians at the Royal Infirmary - the 'centre' - do not always enjoy such close relationships with their patients as do those elsewhere. The more 'impersonal' air of the Royal Infirmary is felt to apply to doctor-patient relationships

as much as to those between doctors and students, or between the doctors themselves.

> Peter Lever said that he believed that Edinburgh medicine was more 'patient-centred' than that of the London medical schools; it was said that the further north you go, the more patient-centred the medicine gets. However, he added that he thought that the physicians were less considerate towards their patients in the Royal than they were in the 'periphery'.

The students' own relationships with patients is a further element in the picture of clinique 'atmosphere'. As with other criteria discussed here, the students' perceived contact with the patients on the wards is used to distinguish between the typical characteristics of medicine and surgery. In keeping with their views on the doctors' interpersonal relations with their patients, the students feel that they themselves are able to form more and closer relations with patients on the medical wards than they are in surgery. Just as work with individual patients is an especially salient feature of students' experience, so the opportunity for such work is highly valued. The relative lack of such opportunity felt to characterise surgery is therefore often proferred as a criticism of the provision for training and experience in that speciality.

> ...there was greater contact with patients during these (medical) terms. Much less, however, during the surgery term.

> Medical work seemed much more interesting and instructive than surgery, where contact with patients was extremely limited. Both medical terms were very enjoyable and the teaching was useful.

Students in particular complain that they have less opportunity to 'clerk' patients - to take a history, do a full physical examination, write up case notes and follow the case through.

> The medical units I have been on have both been very good from the point of view of teaching. The surgery unit at the (peripheral) hospital I didn't think was a good unit to be on. We spent a great deal too much time in tutorials and saw very few patients. We didn't have our own patients to write up, so it was very easy to forget all we'd learnt in the first term in basics like history taking.

The lack of 'patient-contact' on the wards is felt to be a serious lack in the teaching provisions and the experience gained in surgery. As in the previous interview extract, students complain that they are not receiving sufficient practical experience in clinical skills. They grumble about how long it may be since they last examined a patient in any systematic way, and reckon that their skills, hardly won in the medical wards, are quickly 'getting rusty':

> There's not very much contact with the patients... We're not allowed to examine the patients as much as I'd like.

Not only do students feel that their expertise in this area is going to waste, but such a lack of contact with patients also robs them of the opportunity to 'try out' their emerging identities as 'doctors' in the context of clinical medicine - and the 'real' work of patient care.

Cognitive Aspects

Just as the students feel that their practical skills in bedside medicine are suffering in their surgical cliniques, they tend to relate

this feeling to their perceptions of the 'cognitive' aspects of the two specialities. In general, the nature of investigation in the two contexts is felt to differ - a notion often related to the idea of 'detective work'. The task of history-taking, examination and differential diagnosis is taken to present the students with a stimulating intellectual exercise - an exercise which can be enjoyed, what is more, without the responsibility for acting on one's 'findings'. Thus students learn to spot the distinctive, pathognomic indications of particular diseases, and the skills necessary to elicit clinical information - from the patient, and from the patient's immediate environment. Clinical teachers encourage the use of the 'special senses' - exhorting the students to use their powers of observation and inference to the full - in terms reminiscent of the fictional Sir Lancelot Spratt,

> He paused solemnly, and continued in a heavy tone, wagging his finger: 'The first rule of surgery, gentlemen - eyes first and most, hands next and least, tongue not at all.
>
> (Gordon, 1952, p. 79).

When the procedures are successfully completed, and students arrive at a satisfactory diagnosis, then this form of 'detective work' is especially satisfying.[2]

Although Sir Lancelot Spratt offered his advice as a surgeon, it is medicine that is felt to offer the students many more opportunities

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2. In passing it is worth noting that in creating the character of Sherlock Holmes, Conan Doyle took as his model an Edinburgh doctor, and based his methods of detection on the doctor's teaching techniques.

and more scope for such 'detective work' - and hence to be more enjoyable and absorbing an enterprise. One student, after a brief exposure to surgery, summarised this view, in the context of talk about possible career prospects:

P.A. How would you feel about doing medicine or surgery on the basis of this year?

St. Well medicine would appeal to me more than - at the moment - than surgery. Well, that's a bit unfair, three weeks of surgery. I do find it a bit boring.

P.A. From what point of view?

St. Umm - well I prefer the sort of detective work and with surgery its - I feel its rather a case of hazarding a guess and putting down three alternatives and then sort of cutting the person open when you've got a pretty fair idea before you operate - whereas on the medical side you can carry out tests and things for weeks trying to solve the problem - there's more fun doing that, certainly more taxing on the brain.

The concerns of surgery are seen to be much more limited than those of medicine - the work of the surgeons being more restricted in intellectual and practical scope.

P.A. When did you go off surgery?

St. Four weeks ago. (He has been doing surgery for four weeks). No, it really doesn't appeal to me, to clerk a patient, put them in bed, fix a date for the operation, cover them in green cloths, cut them open, cut a bit out, tie them up, put them back in bed, put a drip up, say 'cheerio' to them and

forget about it - its very impersonal I think. Of the two, medicine and surgery - I think I prefer medicine. Again, I've been told by some people that my reasons for enjoying medicine were perhaps wrong, because I enjoy the chase of trying to find the diagnosis, trying to think of every possibility - as quickly as possible, trying to think of diagnostic tests and all that. I think that's much more interesting than just saying

> "Well, it could be gall bladder, let's open him up. Oh no, gall bladder looks all right, but we'll just take it out. Can't find anything wrong, tie him up again!'

Another student's interview comments also illustrate how surgery may be seen to offer limited intellectual scope for the fourth-year students:

> Surgery is very limited intellectually. You can make a diagnosis, but its not so crucially important because in the end you're going to cut the patient up anyway, and find out whether you're right or wrong.

In this way, surgical units are felt to offer less demanding and less rewarding intellectual experiences, because of the distinctive nature of surgical diagnostic and therapeutic procedure. A commonly expressed stereotype of the clinical work in each speciality sees the medical side as characterised by greater reliance on 'brain-work' and diagnostic acumen; the surgical side is apostrophised as requiring more manual than cerebral labour.

> 'Surgery is no real challenge to your brain, there's no trouble with diagnosis... Surgery is just boring'.
>
> In medicine people don't have specific diseases...

> that's the joy of it - nothing in clinical medicine is easy. You're convinced people have something, and they have something different. A large part of surgery tends to be a bit straightforward. You don't seem to get anything affecting the whole body - like diabetes which affects the eyes, the kidneys, etc.

The notion that surgeons work on 'localised' illness, as mentioned above, means that they are often thought to treat their patients only as 'cases' - in terms of that specific lesion or whatever. In addition to the students' belief that this diminishes the quality of the doctor-patient relationships they observe on the wards, this too is felt to diminish the intellectual appeal of surgical work. In the following extract from an interview, one of the female students describes the medicine/surgery contrast in just these terms:

> St. ... It's just the subject-matter they get to teach on that makes the difference.
>
> P.A. In what way?
>
> St. In the ward - I suppose - it's just the fact that they (surgeons) usually have a pretty good idea of just what's wrong, and so you're talking about one specific topic the whole time.n Whereas on the medical side you're usually considering a whole variety of things that could be wrong with them - differential diagnoses - twelve or fifteen things. Makes surgery easier.

As I have outlined students' perceptions of the variety of clinical experience, the contrasts between medicine and surgery emerge as a major concern of the students involved. A number of interrelated criteria are used to produce their typifications of life on the wards in the two different specialities. One student, in extended comments

at the end of the questionnaire, managed to string together a number of these typifications in to a single, sustained critique:

> None of the surgical units in the R.I.E. is popular with the students who have been there. My criticisms of my unit apply, it seems, to all the others. Chief amongst these are:
>
> (1) Too many tutorials (a) which become mini-lectures with a large clinique, or with two units combined, (b) which often do no more than repeat lecture material.
>
> (2) Too little contact with patients for history-taking and examination by students alone. Too little bedside teaching by surgeons.
>
> (3) Too large a group and no dividing of the group. If you came in for an operation, how would you like 12 - 13 people around your bed discussing the complications of your illness or your operation?
>
> (4) Too little variation or flexibility of teaching arrangements - produces boredom.
>
> (5) No opportunity to be in the operating theatre, unless by arrangement on a waiting night. Would this not be possible for one student on one morning of each week in the term? Watching from the gallery is usually a poor substitute.
>
> (6) No instruction in sterile technique in the theatre - where not to stand, what not to touch, etc. - i.e., very basic surgical practicalities. Thus by doing a medical clerkship this summer, it could well be possible to reach Final Phase surgery without knowing how to scrub your hands properly or put gloves on. Some students outside the Royal have this opportunity, e.g., assisting at operations during normal teaching hours.
>
> (7) All students in R.I.E. surgical units in the second term were subjected to an end of term

assessment taking the form of oral examinations or 'spots' exams, or multiple choice papers, or case presentations, or more than one of these. This would have been unnecessary had the teaching staff taken the trouble to get to know us individually and assess our abilities throughout the ten weeks, as was done on my medical units. In the last week of my surgical term, I know that even the middle-grade staff who do most of the teaching did not know my second name. It makes a difference.

(8) The first time the surgeons asked my group for constructive criticism of the teaching was on the last day of term.

By contrast, both my medical units have been so good that I would hesitate to say that one was better than the other.

Another student offered very similar comments in a much abbreviated form:

Little opportunity in questionnaire to express views of surgery - so here are mine.

- clinique far too big
- very boring
- very disorganised. After our journey we often had to wait 30 minutes to be taught
- silly exam at the end of the term
- disinterested (sic) teachers mostly.

My experience has been shared by most of my colleagues who were on other units.

Work and Effort

The likely 'level' of effort required of students in different firms is another criterion employed by students in forming their expectations and judgements about clinical attachments, just as is the

content, the 'direction' of their effort.

The general leval of output and industry is one of the factors that students take account of in choosing and evaluating their cliniques. As with all work settings, and educational settings as well, the amount of effort required on the part of workers and students, and the amount that they in fact put in, is a major preoccupation of the members. It is, indeed, one of the most, if not the single most, important topics dealt with in the 'student culture' and the collective action of the Kansas students (cf. Becker et al., 1961, p.9 ff.). As one might expect, the various cliniques, by virtue of their different approaches to medicine, or surgery, and their different approaches to teaching, are seen to demand different levels of effort on the students' part.

It is by no means the case that students seek out those cliniques that are thought to have low expectations of their students, or low levels of productivity. On the contrary, they identify some units as potentially 'lazy' in their approach, and seek to avoid them for this reason:

> I think it is a pity there are not previous meetings of cliniques to establish a more standardised teaching - standardised regarding 'level' or 'intensity' of work. The great differences at present mean differences in the resulting student - hard luck if one gets 'lazy' cliniques.

Some students in fact appear at first sight almost masochistic in this respect - they expect to be worked hard in their clinical units. One girl, for instance, complained of her unit that it was too 'easy-going', as well as too undemanding of critical thought:

> (Surgical unit) ... more dogma, less original critical thought. All teaching on same ward - but staff approachable. Not enough 'grilling' of students. Not enough individual history-taking and examinations.

Students regard their experience in their fourth-year cliniques as a very important grounding in medicine. They are concerned that, given the variability of cliniques, they should find themselves in one which prepares them adequately for the various examinations in medicine and surgery are not of the greatest importance - they count as 'class' and not 'professional' examinations, students are nevertheless concerned to pass them, as they are concerned with all their examinations. Hence they are interested in receiving sufficiently thorough and extensive coverage of the necessary material to face the examinations with some confidence.

In the course of the fieldwork I was told several times of one particular unit in surgery which was being avoided by my informants. It was widely believed that in a previous year, this one unit had had a record of failure in the examinations; in some versions of the tale I was told that all those attached to the unit had failed the surgery examination in the summer. Such academic concerns, which are short or medium run perspectives, therefore lead students to seek out units which they feel will guarantee them instruction with sufficient breadth and depth of coverage of the relevant academic and practical knowledge.

The students' overall experience of their actual units is likewise evaluated by reference to this criterion. As with so much of the students' day to day life, the evaluations are arrived at in something of a vacuum. Just as they have no specific information regarding the precise characteristics of clinical units, so there

is no set syllabus for their clinical work. There are broad aims that are clearly recognised - the development of competence in the basics of clinical medicine, such as history-taking and physical examination, and a knowledge of the signs and symptoms of a range of illnesses. But there is a range of more specific knowledge and experience which is not specified as a requisite for the fourth-year teaching. For instance, there is no set collection of clinical procedures that the students are expected to have witnessed or performed (e.g., taking blood, lumbar punctures, putting up drips, etc.).

The fact that the curriculum as such remains to a considerable extent 'unwritten' is in large part a direct reflection of the fundamental nature of clinical instruction itself. It must depend very largely on the routine work of the units concerned, the availability of patients with relevant disorders and so on. In the nature of things, the precise nature and timing of clinical work is unpredictable, and it would not normally be possible to specify it in advance, or to attempt to legislate for the presence and sequence of patients who appear in the unit's wards, or in the clinics. For this reason, the precise content of the students' learning and experience on any individual units - and hence over the entire year - is to a degree uncertain. Practically all the information that the students have to go on in attempting to manage their student career is therefore the shared wisdom of the student culture, and their shared stock of knowledge on units and their reputations.

In addition to the problems of relatively short-term attainment, the uncertainties of the clinical course also appear as problematic in a more long-term sense. The students are aware that although the total

span of their medical training is long, the course itself is crowded, add the amount of time devoted to any single aspect of their work is necessarily limited. Hence the academic level, and degree of 'coverage' offered by their clinical attachments is crucial from this perspective as well. Their introductory units in medicine and surgery are seen as laying the foundations for all their subsequent training. The basic skills should be mastered at this stage since the same opportunities will never present themselves again. The fourth-year students are aware that they will not return to formal training in medicine and surgery until their Final Phase attachments - by which time they will be expected to act more as junior medical staff members - as clinical 'apprentices' - and to put their skills and abilities to use. In the meantime, the fourth-years have their summer clerkships to complete during the vacation, when some of them at least will be expected to perform routine clinical procedures and so on. Hence the acquisition of the competence necessary for these future educational periods is of present concern to students in the fourth year. Perceived failure by clinical units to furnish them with the necessary competence is therefore seen as grounds for criticism and complaint; likewise such provision is taken to enhance the quality of the unit and its teaching provision.

The foregoing considerations do not mean that all students go all out to attend units which demand the maximum of effort. They generally seek to balance the level of effort required rather than to maximise it. Individual clinicians, or their firms collectively, can be felt to be too demanding in their expectations regarding students' work.

In the first place, the first days and weeks in clinical work

constitute a major transition in the students' careers, which, while welcomed, is demanding in itself. The new skills required, the novelty of the work setting, and the situational learning of the 'folkways' of clinical medicine, are felt to be potentially stressful by the students. The first contacts with the patients on the wards, and the scrutiny of students' work with them, can be seen, by turns, as exciting, traumatic, enjoyable and depressing. Hence the students look for what they describe as a fairly 'gentle' transition to this new phase of their undergraduate careers, in an atmosphere which does not appear to be too demanding of their intellectual and emotional resources. Thus clinical attachments may be valued to the extent that they provide a 'relaxed atmosphere' in which students may be introduced to medicine and surgery.

The contrast that is drawn with 'relaxed' units is with so-called 'high-powered' units. The term 'high-powered' is used to denote units where the 'atmosphere' is less relaxed, and the demands greater. In general, the 'central' units of the Royal Infirmary are seen to be 'high-powered', and the 'peripheral' ones less so. The staff of the Royal are believed to expect more from the students on their firms - in terms of the amount of new material that they are required to assimulate, the pace of their teaching, and the amount of formal instruction the students received (In fact there is rather more time available for teaching in the Royal Infirmary - as some time is inevitably lost in 'bussing' the students to the various hospitals elsewhere).

This difference between 'centre' and 'periphery' entered the students' shared mythology early in the year, if it was not something they had already gathered from students in the fifth year or Final Phase. During the first two weeks of my field-work, when I

spent time on a 'peripheral' unit, it was being said by the students I was with that the students in the Royal Infirmary attachments were being 'thrown in at the deep end' of clinical work, whereas those in peripheral units (including the one I was attached to) were believed to have had a more gentle introduction to the work of the wards. Students avidly compared their own experiences with those of friends and flat-mates, and found that those in the Royal were apparently working harder, with more direct exposure to the work of clinical medicine, and fewer introductory sessions and talks by staff members.

The sort of sentiments that were expressed are captured in this interview extract:

> P.A. Was the (peripheral unit) your first choice?
>
> St. No, last. My first choice was the peripheral hospital . Its meant to be pretty... not one of the high-powered teaching units, and not one of the lesser, unproductive units. But I'm really quite pleased I went there, because it was a very relaxed introduction to medicine.

The following fragment from my field-notes, also illustrates the students' use of the notion of 'high-powered' units:

> Going down to (peripheral) Hospital on the coach, I sat next to Alan Pickering. I asked him what attachment he was in, and he told me he was in Dr. Muir's unit. I asked him if that had been a first choice. He replied that it had been his first choice, and that he had specifically chosen that hospital. I asked him why, and he told me that from talking to friends in higher years, particularly one who shares his flat (now in his fifth year), he had heard that the Royal Infirmary was very 'high-powered', whereas

> The smaller attachments were more 'easy-going'; 'they don't push you', but people find that when they come to their examinations they haven't covered the ground. He believed that the unit he had opted for would be a happy mean between the two extremes.

As early as my second day in the field, I noted the following:

> Over coffee it came out that the students had gathered there are differences between the (peripheral) Hospital and the Royal Infirmary. They told me that they were being introduced to clinical experience 'fairly gently', whilst those at the Infirmary were being 'pushed in at the deep end'.

In addition to the distinction between 'centre' and 'periphery', the notion of 'high-powered' units is also used to characterise professorial units. Over and above the fact that all but one of these are located in the Royal Infirmary, these professorial units are felt to display the characteristic of a 'high-powered' approach to an even greater degree. Professorial units are thought of as being particularly demanding, and to exercise exceptionally strong institutional control over the students' work on the unit. They are characterised as having a rather 'hot house' atmosphere, in which the students are worked hard and closely supervised. For this reason some students attempt to avoid being attached to such units, or at least to express some reluctance concerning such attachments.

> Mary Marquis and Alan Pickering came in.... I went and sat with them, and I asked them if they had heard about next term's cliniques yet. He said they wouldn't know until the beginning of next

> term, but Mary thought they might know by the end of the present term. I asked Mary what she had put as her choice. She gave me the ward numbers of two Royal (surgical) units, and also the (peripheral) unit. She had difficulty remembering the names of the relevant consultants. She did know however, that she had deliberately avoided both the professorial cliniques. I said I had heard that Professor _____'s unit was a good one, but I said they had heard that students were 'driven into the ground', and that the teaching was 'too academic'.

The following extract from my notes reports a conversation in which a student employed this criterion in a similar way - incidentally illuminating the use of students' advice and perspectives on clinique choice.

> He told me he had spent the first term at the (peripheral) Hospital. During the previous summer he had asked a few people where the best place to go would be, and whether he ought to try to go to a unit in the Royal to start with. On the basis of their advice he had opted for the (peripheral) Hospital, and had been sent there. (He commented that he didn't know how students were allocated to cliniques, but that he was happy, as he had been granted his first choices on both occasions so far). He described his first unit as very good - more 'lively' than the present professorial unit - 'smaller' and 'less high-powered', 'or at least', he went on, 'less pseudo-high-powered'.

By 'pseudo-high-powered' this student indicated a belief that the 'high-powered' atmosphere of the unit was more a matter of appearances, rather than indicating any genuine academic superiority on the part of the

staff members. He saw it as a matter of their self-presentation (though he did not phrase it in those terms).

This view of the appearance of 'high-powered' professorial units was sometimes related to the view of the competitiveness that was felt to colour the 'atmospheres' and staff relationships on them. In the face of such (supposed) competition and rivalry, the staff members' self-presentations are thought to involve a display of superior academic fire-power, as the clinicians vie for status and kudos among themselves.

For whatever reason, many students certainly felt that there were real enough differences between professorial and non-professorial units:

> On the way back to the ward, as we walked down the hospital corridor, I asked Michael if surgery was something that interested him. He said that it didn't at all, and he had decided to get it over with in the second term - and to get away from the professors too. I asked if he thought that professorial units were any different from the others, then. He said he thought they were probably more 'rigorous'.

However, by no means all the students took this reputed 'rigour' and 'high-powered' atmosphere as a reason for disliking or avoiding professorial units. Others saw their 'high-powered' approach as satisfying their need for a thorough grounding in introductory medicine or surgery.

> I chose (professorial unit) because I thought it would be fairly high-powered. I thought I would learn a lot.... "High-powered" means

being attached to the University, with an emphasis on knowing things when you're asked - quite sharp. You expect the people on the units to be quite sharp and able to teach you things'. He went on to say that in fact he had not found it particularly 'high-powered'. He hadn't yet been humiliated by the doctors, 'That comes into the definition - being humiliated'.

Students also invoke a further consideration in relation to the direction of effort required in particular cliniques. Just as students wish to experience the 'right' amount of coverage of the 'invisible syllabus' of their clinical subjects, so they wish to be exposed to a general introduction to these areas. Indeed, the one consideration implies the other - a general approach to the subject ensuring adequate preparation (provided that the clinique is not a 'lazy' one). Thus there may be reluctance to opt for clinical attachments that are seen as over 'specialised in their interests and teaching approaches.

All the students to which the students are sent in the fourth year are general clinical units, with a broad range of pathology treated in all of them. Since emergency cases are normally admitted by wards on a rota basis (the 'waiting night' system already referred to), there can be little prior selection of such patients. All wards can therefore expect to admit a cross-section of such presentations in this way. In addition, consultants and clinical units tend to have their own specialist interests - particular areas of medicine or surgery in which they have special expertise, in which they conduct research, and in which they treat a disproportionate number of cases. The various clinical firms therefore admit patients on an 'elective' basis in these specialist areas - e.g., from their own out-patient

clinics, and referral from the general practitioners. The incidence of pathology encountered on the wards reflects such specialization on the part of the clinical staff.

For some students the specialization of their units is felt to be reflected in the teaching they received. On occasion they grumble that they are exposed too frequently to one limited set of topics, at the expense of others. Thus they may feel that their introduction to clinical medicine or surgery is imbalanced, by virtue of these specialist topics. Individual clinicians are also criticised for spending too much time on their own 'pet' subjects and research interests, possibly at the expense of more elementary concerns of a general nature. For example, while I was discussing their experience of surgery with a group of students over coffee one morning, one of them told me he knew 'all there is to know about colostomies', as the surgeons he had been under were expert in this type of surgery.

The notion of unit specialization is not necessarily treated as an unequivocal reason of criticising a particular clinique. On the contrary, specialization which is treated as 'appropriate' may be taken as a welcome and advantageous characteristic. For example, one medical unit has a close relationship with an 'acute poisoning unit', as one of the consultants is in charge of it. This unit deals with such cases as accidental poisoning, (e.g., there were cases of paraquat poisoning there during the course of my field work) and attempted suicides who have taken 'overdoses'. The consultant in question is an expert in dangerous drugs, and the staff of the specialist unit included psychiatrists as well as physicians. For students attached to the relevant medical wards, there were occasional

visits to the acute poisoning wards, and these visits are treated as particularly 'interesting' (although they may also be 'depressing'). They offer an insight into a branch of hospital medicine that is not normally encountered on the normal wards.

There is yet a further sense in which unit specialization can enter into students' perspectives on cliniques and clinique choice. The 'Nature of Disease' course of 'interdisciplinary' lectures covers clinical medicine and surgery on a system-by-system basis. Following the introductory lectures ('taking a history', 'the approach to the patient, etc.), the lectures are organised around the various physiological systems of the human body. It is therefore an available strategy for the students to attempt to match their clinical attachments to this sequential organization of teaching topics. Not all the lecture-course topics are equally important in this respect, nor equally available on the units for selection. But the topics of cardiology and neurology are important aspects of the course which can be matched with the specialist interests of the medical units, and gastrointestinal specialisation is also available on both medical and surgical attachments.

Such a concern for unit specialization can be illustrated in this extract from my fieldnotes: in thefirst term:

> Talking to a male and a female student, both attached to medical wards. They said that their criteria for choosing a clinique had been based on 'chatting up' some older students, who had recommended 'good teaching cliniques'. They themselves had had little idea of how to decide. They also said that they had tried to choose a clinique for cardiology, which is taught formally during the first term. They both agreed that it was good to have something taught which was of 'relevance', and something to compare it with after three years of learning subjects in a vacuum.

The self-administered questionnaire distributed at the end of the first year also contributed towards an understanding of students' clinique selection. The students were presented with a series of possible considerations in clinique choice, and they were required to rate each on a four-point scale, from 0, 'of no importance', to 3, 'very important. The results of this team are detailed in Table 2.2.

Table 2.2 : Students' ratings of relative importance of criteria in clinique choice

	Mean Ratings	Standard Deviations
The hospitals the units were in	2.0	0.8
What you knew of the reaching arrangements of the units	2.0	1.1
What you had heard of the personal characteristics of the clinicians	1.9	1.0
Choosing general rather than specialised units	1.7	1.0
A desire to keep back some good units for Final Phase attachments	1.4	1.1
The specialist interests of units	1.3	1.0
Possible units for Pre-registration Year jobs	0.7	0.9

In all cases, N = 111

In addition to these pre-selected categories, the students were invited to add anfurther reason that they might have borne in mind. A number of additional reasons were offered. They were, in order of frequency: 'enthusiasm for teaching' (14); 'units in the Royal, to

cut travelling time' (8); 'previous contact with units' (6); 'general atmosphere' (4); 'staying together with friends' (2); 'seeking variety in units' (2). Fourteen students also offered comments referring to the general academic excellence of the units, that they were 'good teaching units' and so on. One also said explicitly that he had tried to avoid any professorial units. The concern to 'cut travelling time' as a reason in choosing units appears to change in importance over the course of the year. It tends to come to the fore in the summer term. At this time some students seek units in the Royal Infirmary. They seek to avoid 'wasting time' when the pressure of work is on them for the summer examinations; they are also nearer to the medical quadrangle, and so can spend any spare time working in the Medical Reading Room.

The results of this questionnaire item suggest that while both short- and long-term criteria are used in making such choices, the short-term criteria of unit 'atmosphere' (the personal and academic characteristics) are of more immediate and pressing relevance to the students than the more long-term considerations of future career management.

2.4 : Some Individual Cliniques and their Consultants

In the previous section, I have tried to do two things. I have explored a number of themes according to which the fourth-year students choose and evaluate their clinical attachments. I have discussed how these evaluative dimensions are used to produce typifications of different segments in the medical school - which the students use in managing and accounting for their undergraduate careers. Various criteria are employed by students in producing some shared understandings of the individual clinical units on which they find themselves. The groups of eight to twelve students in each clinique jointly negotiate their reaction to their day to day experience of teaching and learning.

This section therefore examines in more detail the students' experience and evaluation of individual cliniques. At the end of term, and occasionally during the term, students make comparisons between units. For most of the time, however, their major perspectives are generated in the context of their own cliniques. This too was the context in which the bulk of my research was done, although I implicitly or explicitly called upon students to compare their current experiences with past experiences, or with prior expectations.

I shall discuss three different medical units. The three were studied for particular purposes. Just as the student constructs an individual career line through the medical school, so I too had to make similar decisions regarding my own allocation of time. During the first term I attended two medical units - one in the 'periphery'

and one in the 'centre'. The units to be examined here are those which I attended subsequently. They are two further 'central' units one professorial and one non-professorial - and one, non-professorial, ' 'peripheral' unit. Thus in presenting these three units it is possible to offer some degree of coverage of the different segments. However, the units selected were not examined for their 'typicality' (always a very problematic notion in small-scale research, cf. Colson, 1967). They were conceived more in terms of 'theoretical sampling' (Glaser and Strauss, 1967). That is, rather than searching for rigorously predetermined criteria for comparison and 'control' between samples, I sought locales for the research which appeared to offer the fruitful elaboration of emergent categories of data-collection and theorizing. The selection of units was therefore something which itself emerged out of my own accumulation of students' knowledge and beliefs concerning cliniques. In various ways, the cliniques chosen were taken to exemplify a number of characteristic themes and preoccupations among the students.

I start with the two medical units in the Royal Infirmary. As I have indicated, the units were picked on the basis of conversations held with various students and staff members in the course of my fieldwork; the two cliniques were presented to me in very different terms. Many people were eager to offer me advice as to how I should proceed, what I should concentrate on and who I should approach for information. Although such advice always seemed to be offered from the best of intentions, at first it appeared rather irksome to me. I believed that my would-be advisers were not aware of the sort of approaches and background interests that I was bringing to the research. I was chary of having my research taken over and mapped out for me by

those in the medical school - perhaps with a personal axe to grind themselves (cf. Miller, 1952). However, in retrospect I realised how useful such 'advice' could be in offering clues, not directly to my research approach, but in a more oblique manner, by offering insights into the perceptions of the members of the medical faculty and their students.

My presence in clinique 1 arose from just this sort of 'advice'. I was repeatedly advised not to go near this particular attachment, as the chief consultant was thought to be a 'difficult' man, and would be unlikely to cooperate in allowing me to attend his teaching sessions: moreover, I was warned he might conceivably cause trouble when it came to my research and my position in the medical school. Comments of this sort came from many quarters, as people were willing and eager to 'mark my card' when it came to likely attachments. Naturally, my curiosity was roused and I determined to observe the work of this consultant and his clinique in the course of my research. The unit - or, more specifically, the chief of the unit - was clearly a very salient element in peoples' perceptions of clinical teaching.

The supposed uncooperativeness on the part of Dr. Burton, the chief of this first clinique, was one of the myths about the unit which proved to be exaggerated, if not totally unfounded. When I first went to ask Dr. Burton if he would allow me to come and observe on his unit, I arrived in the middle of his morning ward round. I waited for some considerable time outside the ward, with mounting apprehension, until the round was over. I introduced myself as Dr. Burton, the ward sister and the rest of the procession emerged through the double doors at the end of the ward. My notes record:

> Dr. Burton offered me a rather limp hand to shake, and when I introduced myself to him he cried, 'My dear fellow - why didn't you say you were here....' He took me into the side-room. I started to mention the letter of introduction that had been sent to all clinical teaching staff last term, but he waved all that aside. He said he remembered that there had been objections raised by some of his colleagues, but he thought it had been unnecessary and rather silly. He asked me what was it exactly that I wanted, and I said that, having looked at other units, I should like to observe the teaching on his wards. 'Join the class,' he replied.

In fact he raised no objections to my presence on his wards - indeed, his attitude seemed to convey that any objections were unnecessary and even unthinkable. I wrote at the time -

> Dr. Burton's reactions to me were rather different from what I had been led to expect from all the previous reports of his manner.

In retrospect, and in the light of subsequent knowledge of Dr. Burton, his attitude towards my research can be understood in relation to his idiosyncratic style. In so clearly making light of any possible difficulties, and in the way he did it, he could be heard as displaying his individual autonomy and idiosyncracy - and as distancing himself from his colleagues. At the time, however, I was sufficiently content that the requisite permission had been granted.

Dr. Burton's Unit

Dr. Burton's was a non-professorial unit. In addition to Dr. Burton, there were two other consultants, and during my observation teaching was conducted by them and two registrars. The organization of the teaching was an important feature, and was crucial to an understanding of the 'atmosphere' attributed by the students to this unit.

The lion's share of the teaching was done by Dr. Burton himself. He taught the fourth year students on at least four days every week. The two other consultants took a period each. One of the registrars took a weekly tutorial on Therapeutics. The first two periods of the week were spent in the Medical Outpatients Department with Dr. Burton. The rest of the time was filled with bedside teaching by the registrars. The students' experience of medicine on this unit was coloured to a very great extent by the individual, personal style of Dr. Burton himself. Probably more than any other clinique, this one was identified with the one consultant.

Dr. Burton was a well known 'figure' in the medical school. Several of the older consultants were regarded as 'characters' by their colleagues and their students. But Dr. Burton's name was mentioned more often and more consistently than any other physician's or surgeon's when the conversation turned to idiosyncracies or eccentricities in teaching. He was seen as a particularly 'colourful' character, and was variously described as 'a bit of a showman', or a 'prima donna'.

An example of Dr. Burton's status as a 'character' occurred when it was his turn to offer the weekly clinical lecture. Several

students I spoke to or overheard apparently went to this lecture with the express purpose of seeing Dr. Burton 'in the flesh', and finding out what he was 'really like', if they had not already been attached to his wards. On some units the students were required to fill in a weekly list - displayed in the teaching-room - to indicate which patients they had seen, and the subject of their teaching sessions (e.g. the disorders of patients taught on, the subject of tutorials). After the clinical lecture I overheard two students from one such unit discussing what they should write down on their list as the subject of Dr. Burton's lecture. Finally they settled between them that the subject had really been Dr. Burton himself.

Stories of Dr. Burton's behaviour circulated among the fourth-year students early in the year. During the first week of the first term, whilst I was working on my first 'peripheral' unit, I overheard a conversation one morning, which included the following tale:

> 'On the first morning the students had been on the wards, Dr. Burton had told a couple of his students (male) to get to the back of the group, because they were inappropriately dressed, and had long hair. The students who were discussing the episode clearly found his behaviour odd in comparison with that of their own teachers at the ('peripheral') Hospital'.

This particular incident was taken by the students in two senses - firstly as an instance of Dr. Burton's own unusual style, and was also taken to typify the more formal requirements of dress and demeanour which were part of the 'atmosphere' of 'the Royal'.

Before going into further detail, at this point I should like to introduce my second medical unit.

A Professorial Unit

This was the unit I studied immediately after Dr. Burton's, and it was selected to contrast with it. Unlike Dr. Burton's it was a professorial unit - the staff holding University appointments rather than being employed by the N.H.S. The unit was a large one, in terms of staff numbers. During my period of observation the students were taught by thirteen different physicians at differing grades. There were five consultants attached to these wards, of whom the Professor was the chief. With such a large staff to draw on, the organization of the teaching differed quite radically from that found on Dr. Burton's wards. The teaching was arranged in such a way that the fourth year students were normally taught by each member of staff no more than once a week (although the students did in fact see one or two of them slightly more often if they happened to 'stand in' for a colleague who was absent or busy with other, more pressing work). The pattern of the morning's work was the same for four days of the week: the first hour was spent by the students 'clerking' patients individually; the second hour was spent with one of the more junior physicians; the third hour was spent with one of the five consultants. On the one day that departed from this pattern, the first hour was spent in a seminar (again, taken by a junior physician), the second hour was left free for clerking and the final period of the morning's work was devoted to attending the clinical lecture. In sharp contrast to Dr. Burton's unit, there was no individual teacher who dominated the teaching routine, nor indeed was there a group of physicians who had any time to stamp any personal style on the teaching of the unit as a whole.

In their teaching arrangements the two cliniques had a common feature in the high proportion of consultant teaching offered to the

fourth-year students. In most units the bulk of the teaching falls on the shoulders of the senior registrars and registrars. The two units differed, however, in that students on the professorial unit regularly saw a wide range of doctors with particular interests within the field of medicine. Dr. Burton, on the other hand, was very much a general physician, and although his colleagues had more specialized expertise, they made relatively little impression in comparison with their chief. The difference in the teaching arrangements meant that when students came to make evaluations of the two units, they were considering Dr. Burton alone in the one unit, and all the physicians involved in the other. It was really Dr. Burton and his teaching that gave rise to the distinctive 'atmosphere' of his wards. In contrast, since the chief of the second firm was a University Professor, he was frequently busy or away from Edinburgh, and over the course of the term he saw the students even less frequently than the scheduled weekly meeting. Consequently he was not in himself taken to be a salient feature of his unit's 'atmosphere', except insofar as he was felt to be conspicuous by his absence.

I shall go on discussing these two cliniques by reference to my 'first impressions' in working on them. The initial interactions I had with the students on each unit are instructive and, as I subsequently found, set the tone for my inquiries in the days that followed. I give here some extracts from my fieldnotes and discuss their significance.

It happened that I already knew two of the students attached to Dr. Burton's clinique, and I had often conversed with them during the previous term. It was with one of them Jane Peters that I first met:

I asked her how she had come to be on this clinique: she said she had made it her third choice, and had not really expected to be given it. It was not, she said, a popular clinique...

She asked me if I had met Dr. Burton yet... she described him as one of the old brigade, and added that he could be very unkind and hurtful to a sensitive student. She added that, luckily for her, he didn't mind girls. She had heard that twenty years ago he had been considered a very good clinician, but was now getting a bit past it ...

This particular student's immediate response to my appearance was to furnish me with a sense of the idiosyncratic nature of Dr. Burton and his clinique. It was a pattern that was often repeated - being attached to this unit was something which students might 'dine out on'. They stored anecdotes about their experiences and shared them with their fellow students. By the same token, other students, on meeting one of Dr. Burton's students, would ask for such anecdotes - 'Is he really like that...?', 'Is it true that...?' This was one point of contrast with the professorial unit.

I had also met two of the students on the professorial unit in the course of the previous term's research. However, when I first arrived on the wards, neither of these students appeared to be very keen to talk to me spontaneously about their work and their cliniques. This time, therefore, I simply hung about with the students in the corridor and eavesdropped. I noted:

Three of the students were waiting in the corridor and chatting. Simon Cameron said he didn't know how he was going to manage to see his patient properly this week, as there was an extremely long list of things they (i.e. the hospital staff) wanted to do to him (i.e., various

diagnostic tests and procedures)... The other two students were discussing who it was that was about to come and teach them. They decided 'it must be Dr. Black', but couldn't remember who he was, and one of them tried to decide if 'He's the one that looks a bit like Dr. King' (another physician on the unit). Nicholas Payne said something to the effect that it was difficult to get to know teachers that one only saw once a week.

Students face similar problems: the students on Dr. Burton's wards were also concerned with access to 'their' patients. When Jane Peters and I were joined by her friends on the unit, the students also swapped 'hard luck' stories on patients who were inaccessible or who had 'disappeared' altogether. In other respects, however, the experiences of the students on each clinique clearly differed. On the first unit, the student I spoke to was eager to talk about the unit, and about the chief. She asked me if I had met Dr. Burton yet as it is were a great treat in store - a very special experience. I interpreted this in the light of Dr. Burton's reputation - of his rumoured eccentricities, and his approach to his students. But I had also expected that the studonts' reactions would be mainly negative - that they would dislike the unit, and dislike their chief. Yet, although Jane Peters had admitted that the unit was not popular - that is, not often <u>chosen</u> for student' attachments - her attitude struck me as one of amusement rather than hostility. In contrast with this, the students of the professorial clinique, which I had confidently expected to be by far the more favourably received, seemed by contrast listless and unenthusiastic. It seemed suggestive that they did not know who was going to teach them, or, once his name was guessed at, just which of the physicians he was.

Although it could be argued that these two contrasting 'first days in the

field' (cf. Geer, 1964) were simply a matter of luck - that perhaps I had just caught the professorial unit on an 'off day' - or an unusually charitable and enthusiastic member of Dr. Burton's clinique. However, as my work developed it appeared that these first impressions were to be reinforced, and were symptomatic of the students' experience in general.

The students themselves had come to their respective cliniques with rather different hopes and expectations - of the students in Dr. Burton's clinique, only one had put the unit first on his list of choices, and he said that he had made his selection at random; even for those who had wanted to do surgery that term, the clinique had been low on their list of medical units. As Jane Peters had put it, it was not a popular unit, and as another of the students told me:

> There are a lot of awful stories that circulate about Dr. Burton: he is a good teacher, but most people don't get on with him. Nobody goes to his unit out of choice...

Whatever their subsequent experiences, then, most of the students who found themselves on Dr. Burton's unit were conscripts - deterred by what they had heard of this attachment.

The students who found themselves on the professorial unit had all put it as their first choice of attachment within medicine (although one student had stated a preference for surgery over medicine for that spring term):

> Simon Cameron told me that (the clinique) was a first choice: he simply wanted to be in a Professorial unit, as he thought it would be the best....
>
> Harriet May told me that (the clinique) was her first choice - this had been on the recommendation of fellow students....

But as further comments show, the students on the professorial clinique did not necessarily feel that their best hopes had been fulfilled:

> It was my first choice this time - a bad mistake; I'm disappointed in it so far .... in the teaching.... the way it is taught....
>
> James Baxter added that (the clinique) was not very good in comparison with his first attachment....

Those students on Dr. Burton's unit, on the other hand, had found that many aspects of their original disapprobation had been overcome by their actual experience of it. This sense of - rather grudging - approval granted by them is illustrated by the following extract from a conversation I noted towards the end of the term:

> (A student from another unit): I'd hate to be on Dr. Burton's unit...
>
> Jane Peters: I don't regret having gone there....
>
> John Chalmers: (corrects her): I don't regret having been <u>sent</u> there!

Similarly, in the course of an interview, another of the students told me:

> At the beginning of the term I was a bit fed up with Dr. Burton. Now I'm beginning to get used to him and I just accept his attitude towards students. He's a very good teacher....

Thus it appeared that the students on each clinique had generated views on their attachments - views which they negotiated together, in the light of their day-to-day experience on the wards, and which they contrasted with their hopes and expectations. It is possible to identify a number of critical dimensions that were invoked by the students in each unit. Over the course of interviews and informal conversations with all students of both cliniques, there emerged a number of related areas of opinion.

First, there was the perspective by which students concentrated on the 'teaching' and the staff members' relations with the students. As I have already indicated Dr. Burton dominated the teaching programme. Insofar as he undertook a great deal of the fourth-year teaching, the students took this as indicating a commendable interest in them and their training.

> Dr. Burton takes us four days out of five, and on the fifth day he's there hanging about - and you can respect the man for that.
>
> George Finlay told me that they are taught by Dr. Burton every day, and he felt that Dr. Burton was obviously taking an interest in the students.

The students on the professorial clinique expressed just the opposite opinion of their own teachers' attitudes towards them and their educational work. On a number of occasions they complained that the physicians were 'not really bothered about us', and many of their conversations with me centred on a dissatisfaction with the attention they were receiving from the physicians. On several occasions I sat with the students as they waited in the corridor for someone to come and teach them - in vain. They treated this as quite in keeping with the 'no interest' atmosphere, and as a predictable aspect of this particular attachment. The same thing <u>happened</u> from time to time on Dr. Burton's clinique, but was not treated as 'typical' of the unit as a whole.

A concomitant of the lack of interest in teaching on the professorial unit was perceived by the students to be a lack of personal knowledge of them on the physician's part. They would complain that because of the teaching organization of the professorial

unit, they saw any individual doctor infrequently. Hence they felt that no single physician was able to gain any close acquaintance with the students. This was a topic of conversation when some of the students came to hear of Dr. Burton's arrangements:

> Over coffee our conversation turned to what happened on Dr. Burton's wards. James Baxter was surprised to find that on that unit Dr. Burton conducted so much of the teaching personally. They both agreed that it wasn't like that on this present attachment, where they rarely saw the individual consultants.

Similarly, one of the male students contrasted the professorial unit with the one that he had been on the previous term:

> It was very good... they accentuated the teaching - they made a point of teaching you usefully: they didn't go over points - they taught them well the first time... I think it was better than the one I'm in at the moment - you had more contact.... again, it was smaller .... smaller in the number of doctors teaching us.

During discussions about the assessment of students by their clinical teachers, the students on the professorial unit would maintain that they did not see individual physicians often enough for them to be able to gain a valid impression of their abilities and work over the course of the term. The students on Dr. Burton's unit, on the other hand, frequently pointed out the interest shown by the chief, and expressed the belief that he was monitoring their progress. His personal involvement in their work was exemplified for the students by the fact that Dr. Burton called them in at the end of term to tell them what assessment he had written about them. The end-of-term assessment was not mentioned by the staff members of the professorial units, and in fact was not completed until after the term had ended and the students

had left the unit.

A second major evaluative perspective was concentrated on patients rather than the students themselves. The students characterized each of the differing atmospheres in terms of the perceived relationships between physicians and patients. The students of Dr. Burton's clinique included this aspect of clinical work as a salient characteristic of their chief's personal style. They emphasised to me in our conversations that just as they believed him to be enthusiastic about teaching and was closely in touch with his students, so they saw him to have a close personal knowledge of his patients. They regarded this as of great importance, and it was the most frequently stressed aspect of the students' evaluations of the clinique. It was one of the few topics on which the other physicians of unit A were referred to specifically, and they were not felt to match up to their chief in this respect. The 'knowledge of the patients' perspective was also applied by the students of the professorial clinique in forming opinions of the physicians on their wards. As in the 'teaching' and 'knowledge of ths students' perspectives, the criteria were the same as those applied to Dr. Burton, but the outcome was the reverse. Just as the students felt that their mentors took relatively little personal account of them, so they believed them to have little personal knowledge of their own patients. In describing this the students drew a distinction between treating the patient 'as a patient' and approaching the patient as an 'example of a complaint'.

> Sometimes you get taught on a patient as a patient - 'this is Mrs. So-and-so with such-and-such', and that's fine - and other times you're taught on a patient who's got a complaint.... you're taught on the complaint, you see....

The students were unanimous in preferring the approach which they believed stressed the personal uniqueness of the patients. The contrast implied here was usually directed at the clinicians of consultant grade, rather than their more junior colleagues. The way in which this perspective was brought to bear on the two different cliniques can be illustrated in the following extracts. The first two echo the common evaluation of Dr. Burton and his approach:

> One thing about Dr. Burton, he really knows his patients ... he's got the cases at his fingertips. He's got a fantastic memory for his patients....
>
> You can respect Dr. Burton for looking after his patients well: he sees his patients a lot... Dr. Brown, for instance, is very rarely in the ward - he's a specialist and he's doing research....

The following extracts also reflect commonly stated views on the professorial unit:

> Simon Cameron told me that in (the professorial clinique) there was less emphasis on teaching: also he found he disliked the treatment of the patients - not, he hastened to add, the medical treatment they received, but the way they're treated personally by the consultants. He felt that the consultants seemed unaware of the patients in their charges and knew them less well than did those at (his first clinique). He said he noticed consultants looking at the patient's name at the head of the bed to remind themselves of who it was they were talking to.... He thought Dr. Hare was a 'prime example' - he was very busy but seemed relatively uninterested in his patients.
>
> Two of the students in conversation told me that a lot of the staff were not interested in teaching

> and didn't know their patients. They 'forgot their patients' names' and you can see them quickly flicking through the case notes or glancing at the head of the bed - it's sometimes very obvious.
>
> Somebody like Dr. Legge doesn't seem to be interested in the patient - so he just talks about complaints.

A large professorial unit- with a number of young research workers, as well as distinguished academic clinicians - understandably has an 'atmosphere' coloured by 'scientific' and 'research' orientations towards medicine. Dr. Burton's basic approach was quite different. The content of his teaching was little directed towards such 'scientific' approaches. He tended to look down on what he saw as the over-enthusiastic reliance on the full battery of medical tests, procedures and so on. His teaching was devoted to inculcating what he saw as the basic techniques of bedside medicine - thus he would stress the 'use of the special senses', in the observation and examination of the patient - emphasizing that the students should rely primarily on their own faculties of observation and inference. Indeed his 'ignorance' of contemporary advances in medical research was notorious among the students (though whether or not it was well-founded I cannot tell).

The 'scientific' approach was taken as occasion for some criticism by the students: academic medicine was seen as contrasting with satisfactory doctor-patient relationships. Students would also complain that the teaching they received on the professorial unit was often too specialised. As one student told me, 'They give you a spiel about what they're interested in'. He instanced a tutorial on bacteriogenic shock, when a lecturer had spent all but a couple of minutes of the hour lecturing the clinique about a particular patient, admitted as an

emergency, who has needed treatment based upon novel and experimental techniques.

Both cliniques were felt to be 'high-powered' a feature which they shared with other units in the Royal Infirmary, according to students' perspectives. Aspects of this frame of reference were applied explicitly by students on both units - especially those who had spent their first attachment in one of the 'peripheral' hospitals. They all agreed that the Royal was less 'friendly' and more formal - that relationships were on a less easy-going basis, both between students and staff, and between staff members. They also emphasized the increase in 'pressure' that contrasted with the more 'relaxed' approach of the other hospital units:

e.g. On the professorial unit: 'Last term Nicholas Payne was in Dr. Mason's unit at the ('peripheral') Hospital. He finds the main difference between there and here is the fact that on this unit there is 'more teaching' and it is 'more high-powered'.

On Dr. Burton's unit: Jane found it more 'high-powered' here, and that the chief 'keeps us on the go'.

Yet even so, there were subtle distinctions in this 'high-powered'-ness. For the students on Dr. Burton's clinique, this resided in the close and demanding relationships they enjoyed with the chief. He had firmly fixed ideas about how things should be done, and insisted that students did them in <u>his</u> way. He demanded a high degree of precision from the students, and it was in that sense that he was perceived as 'high-powered' in his approach. The sense in which the professorial unit was seen as 'high-powered' lay in the amount of scientific and factual knowledge that they were expected to assimilate, and to produce in tutorials. Such matters as the interpretation of haematological

reports, electrocardiographs, the niceties of looking even at X-ray films were part of the professorial unit's teaching that were stressed. Dr. Burton referred to them little, if at all. It was typical of his general attitude that he should express little or no faith in the more scientific side of clinical medicine. He preferred to rely on his bedside examination - and his 'clinical judgement'. He even expressed little credence in the value of X-rays, except as a device for the reassurance of patients. And on one occasion he shocked some of the students by claiming that he could gauge the patient's blood pressure whilst taking the pulse. The students remained convinced that this degree of independence from 'technology' was really valid, but it provided an excellent example, as far as they were concerned, of Dr. Burton's approach.

It was also an important aspect of Dr. Burton's style of clinical medicine, and clinical teaching, that he should insist upon a particular style of <u>rhetoric</u>. He was insistent upon the point that students should always present case-histories, or reply to his questions, in the prescribed manner. This was something I first noted when Dr. Burton was teaching the fourth-year and Final Phase students together. He asked one of the Final Phase students to summarize the history of one of the female patients:

> .... He asked the student to present the history. 'On Saturday...', the student began, and Dr. Burton interrupted him. Turning to the others in the clinique he said sarcastically, 'He thinks the history began on Saturday!' The student looked a bit exasperated, and began again, taking a deep breath, 'The patient is an eighteen year old bank clerk...' and then went on with what had happened on Saturday. I was not able to record it all

> verbatim, hut it was clear to me that he was being expected to present the case appropriately couched in a rhetoric of clinical medicine. His expression suggested that he didn't think much of being ticked off about it.

Occasionally Dr. Burton would demonstrate how answering should be done, by taking the role of a student and answering himself. For instance, on one occasion two students had been seeking out a patient's apex beat, but could not agree on its location and were having difficulty.

> Dr. Burton felt for himself, and said that 'facing his tormentors' (this is how he had earlier referred to examiners), he would reply, 'Dr. Burton, I am delighted to answer your question, right or wrong. I find it difficult to locate the apex beat because of the obesity of the patient...'

In his clinical lecture Dr. Burton explicitly coached the students in his rhetoric:

> Dr. Burton said that he would present the history condensed - as he would likestudents to present it when they came to his wards, or when he was examining them. The elicitation of the history had taken him about seven minutes, he said, but could be expressed in two sentences. As he spoke he noted the points on the blackboard:
>
> 'This sixty-three year old woman, widowed through the death of her husband, six years ago, from carcinoma of the lung'... (an aside: 'From smoking sixty cigarettes a day')... the mother of one child, moderate in her habits... (that refers to drinking)... describes the death of each parent from a stroke. Previously well, except for her nerves and rheumatism, she now describes four disorders: nerves, CNS disorders, haematemesis - either drug induced or

> peptic ulcer - a skin disorder....'
>
> Later in the lecture Dr. Burton again emphasized the importance of presenting a case in this concise manner, saying 'My house physicians could give me two sentences and give me all I need to know'.

In stressing the importance of rhetoric in this way, Dr. Burton emphasized the close control he exercised through this personal style. It is difficult to express in writing the almost ritual manner in which Dr. Burton required histories to be expressed. He himself would reel them off like incantations, in a manner which, in the medical school, was unique. He also had a similarly personal style when it came to the physical examination of the patient - one which he also commended to his students in no uncertain terms. He insisted that they adopted his style which, he claimed, combined 'efficiency with elegence'. In Dr. Burton's hands this represented a smooth, if somewhat mannered, rapid preliminary examination of the patient's face, hair, skin, torso and hands. This too became a performance that the students needed to go through if they were to gain favour with the chief. This style of performance - so stylised and so idiosyncratic - was another of the distinctive features of Dr. Burton's teaching style.

As with so many of his ways, the students regarded Dr. Burton's personal style with some ambivalence. They frequently grumbled about having to learn what they regarded as his own idiosyncracies, and performing for him in the required manner. On the other hand, they admired the way in which he laid stress on these basic clinical skills, and the thoroughness of his teaching of them. As one student put it:

> I'd heard that although he has his little idiosyncracies, he's very good for basic training. I'm prepared to put

> up with quite a bit if I can get something out of it.... I know he's got a tremendous reputation, but I've talked to someone who was with him last term, and they said he was really first class. And I must say that I've found that. His technique is immaculate, and perhaps old fashioned, and he slates other folks' ideas, but if he can prove to me that his method will give you better results than anybody else's, then fair enough, I'll adopt it.

There was a general feeling among the junior students, that although Dr. Burton was difficult, he taught them good basic medicine; hence they grudgingly admitted that after all they did not regret the term spent on his wards. For the senior students in Final Phase, however, the picture was rather different, although their characterization of the unit was congruent with that of the fourth-year students. Two Final Phase students I spoke to recapitulated much of the previous description when I spoke to them informally, and again in an interview. However, they placed a different emphasis on the features of the two cliniques I have described, and suggested a difference over time in the use of the students' perspectives.

> They complained that Dr. Burton was just too far behind the times. One of them said he didn't want to be too scientific himself, but felt that Dr. Burton went too far the other way. They both added on the credit side Dr. Burton knew his patients very well, Also, he would not order a lot of procedures and tests on the off-chance that they might show something, or just out of interest. However, they thought that Dr. Burton didn't place enough interest in therapeutics and preferred to 'just look' at a patient.
>
> They contrasted Dr. Leggé (on the professorial unit) who, they said, was more interested in his research than in being a good clinician.

In re-emphasizing the distinction between the 'practice' orientation of Dr. Burton and the 'academic' orientation of the professorial clinique, their evaluations differed somewhat from those of the fourth year groups. One of them went on to describe Dr. Burton's units:

> This was my last choice; it really is a waste of time in many respects.... for once you get a lot of consultant teaching, which tends to be repetitive, by the nature of the chap; the registrars are very good in fact.... there are two - you don't get much of either, only one session a week. My main criticism is you get taught all the time with fourth year, which is very humiliating. You should know the things, fair enough, but it means it's always kept to the fourth year level, and you inevitably suffer from that....

His colleague broke in:

> ...And we get this consultant teaching - this archaic consultant teaching - a lot of it is basic common sense, and he repeats himself time after time.... he tells these boring anecdotes for five, ten, fifteen minutes every hour....

They agreed that Dr. Burton's clinique was a good attachment for fourth year students to start off in, and offered a wide range of genuinely <u>general</u> medicine: the patient-centred approach found there was felt to be appropriate for the general, basic work of the First Phase of clinical work. For their own purposes, however, it was not felt to be sufficiently academic in its teaching, although, like their junior counterparts, they both rejected the extremely 'academic' approach exemplified (as they believed) by a consultant from professorial unit.

Simon Cameron, one of the male students attached to the professorial unit for the second term of the year, had spent the first term with Dr. Burton; he was able to make an explicit contrast between

these two units. (He did this quite spontaneously and without any prompting on my part). Prior to his entry into clinical medicine, this student maintained he had had few clear ideas about why he wanted to be a doctor, or what sort of medicine he wanted to practice. He thought he had been attracted primarily by such factors as the prestige and 'glamour' of the medical profession. But now, he told me, he repudiated such aspects of being a doctor, and he thought that 'last term with Dr. Burton cleared me up a lot'. He was now attracted by the view of medicine as a 'profession': this he saw as implying altruistic service, as opposed to his more worldly ambitions previously. He had now decided to try to take up medicine in Africa, and my interview notes with him report:

> In Africa he thought he would probably go to a mission hospital, and eventually would quite like to teach medicine out there. He thought his desire to teach was influenced by Dr. Burton, whom (he said) he had a tendency to 'hero-worship'. He had been particularly struck by Dr. Burton's interest and enthusiasm for 'transmitting his art'.
>
> Dr. Burton's clinique had not been a choice of his, but he was very glad he went there. 'You get taught by him every day', and Simon thought that Dr. Burton was taking a lively interest in his students. He was very impressed that Dr. Burton should consider teaching fourth-year students to be of such importance.
>
> The professorial clinique <u>was</u> a first choice, but he was 'disappointed' in it, because there was 'no cohesion in the teaching'.

This students attitude to the professorial unit was not entirely negative however; he added that he much appreciated the opportunities that were offered on the unit to visit and observe the work of the

Coronary Care Unit, the Matabolic Unit, the Renal Unit and so on. He was sure that although the consultants all had specialist interests, the cases they were taught on were not over-specialized for fourth-year purposes; but he did think that the younger doctors were prone to teach on specialized topics too frequently. He also complained that:

> You only see each consultant once a week, and they don't get to know you'; he contrasted this with Dr. Burton, 'who had his own opinion os us, which he aired frequently'. In the (professorial) clinique one tends to lose interest because of a lack of contact with the teaching physicians.

Simon Cameron's comments on his relative lack of <u>involvement</u> in the unit during his second term was echoed by other members of the clinique. Harriet May complained that:

> 'On this clinique nobody has invited the students to come along to waiting night...'

Nicholas Payne also commented:

> At the (professorial) clinique there is no involvement in the unit: 'you just go in, get taught, and that's it - you don't get to know the life of the ward....' He contrasted this with his first clinique (at a 'peripheral' hospital) where they had had regular discussions about how they were getting on with the course. He also complained that on the professorial unit the students had never been invited to waiting nights. 'Although you don't learn much about medical science on waiting nights, you do learn a lot about everyone's relative position'.

The students on Dr. Burton's clinique, on the other hand, attended waiting nights and ward meetings, and in their conversations with me expressed a degree of attachment and involvement in the unit. This greater feeling of participation arose partly from Dr. Burton's practice

of taking fourth-year and Final Phase students together for ward teaching. The students of the two years thus got to know each other, had coffee-breaks at the same time and became collectively involved in discussions about the work of the unit, and the day-to-day tribulations and amusements of their chief's teaching.

The students on the professorial clinique felt that their teachers' lack of involvement in the day-to-day work of junior cliniques led to a perfunctory approach, and a tendency to seek the 'easy way out' by concentrating on simple clinical signs, or lecturing on specialist interests at the expense of a more integrated approach to their studies, and a more carefully considered teaching programme, tailored to the needs of the fourth-year students. The 'easy way out' was exemplified for the members of the clinique, and was used to illustrate it to me, in one particular incident the students recounted:

> James Baxter said that last week he had been in the duty room, and Dr. Foot had come in, not realising that there was a fourth-year present. (This was, in passing, taken to exemplify the physicians' lack of knowledge of their students). The consultant had asked a houseman to sort him out someone 'easy' for him to teach on: someone easy for <u>him</u>, James Baxter believed, not for the students.

This anecdote came to achieve considerable importance in the collective ideas that were current among the students of the clinique. It was reported to me (spontaneously), and slightly different versions, by each of the students when I interviewed them or talked with them informally:

e.g. Simon Camcron expressed his disappointment in this clinique, and the attitude towards the teaching. He instanced a discussion between two doctors in the side-room, about finding a good patient to teach on, because Dr. Hand had not turned up again. He characterized the approach as 'haphazard'.

and

Harriet told me that the physicians 'are to be heard' in the side room asking other doctors who would be a good patient for them to teach on.

This story, as it was repeated to me, and among the groups, assumed a central place in the students' 'definition of the situation' (Thomas, 1928; McCall and Simmons, 1966; McHugh, 1968). It obviously gained in the telling and re-telling: for instance in Harriet May's version just summarized, the original story about one isolated incident became a general statement about this group of physicians - so that 'physicians' (in the plural) 'would be heard' (in general) engaging in this behaviour. In this way the story came to embody and encapsulate the students' opinions of the clinique as a whole.

I have presented a brief sketch of life on two different units, as seen through the eyes of the students on them. Although these pictures of life on the wards are necessarily brief, they illustrate how the students' experiences in two milieux, only a few yards from each other in the same hospital corridor, can differ quite radically. The story of the professorial unit is one in which the students failed to find an identity for their teachers, or a position for themselves. They felt out of place in a unit where they were not known personally, and where even the cognitive style and medical ideology of the physicians seemed to emphasize this sense of an impersonal environment.

The story of the other unit is rather that of one man, and the colourful and distinctive, highly personalized, atmosphere which he generated on his wards. Both of these medical units can be briefly contrasted with a third - a 'peripheral' non-professorial unit.

Dr. Maxwell's Unit.

This clinique also enjoyed a wide reputation. In contrast with the previous two, it was rarely spoken of except with flowing praise. It was, consistently, the most popular and sought-after unit among the students. Those in the fourth year might hold back from putting it at the top of their preferences only in the hope of being able to go there during their Final Phase attachments. All the students that I observed and interviewed there had gone as a first-choice clinique. As I shall try to describe, it too was in many ways the story of one consultant, whose personal contribution to its 'reputation' and 'atmosphere'. Although there were three consultants associated with this attachment, one stood out in the students' evaluations, and it was his personal style above all else which coloured the students' impressions. As with the two cliniques already described, my decision to spend time with students on this clinique derived from my 'theoretical sampling' approach, on the basis of the students' own typifications.

Above all else Dr. Maxwell's teaching style provided the unit's distinctive features. His name was one of those most commonly introduced into students' conversations about 'characters' in the medical school. He was doubly unusual, however, in being much younger than the other 'characters' - like Dr. Burton - who tended to be consultants 'of the old school', as they were sometimes described (or

'the old brigade'). Other 'characters' were seen to be fighting a rearguard action against change, and deterioration of standards (in dress, behaviour and demeanour, etc.). Dr. Maxwell came across to the students as a forceful agent for change himself. From the point of view of most of the students, this unit appeared to combine and mediate many of the most desirable features, and to steer a path between the various extremes.

The first and most desirable feature was that of apparent interest and enthusiasm for teaching the fourth-year students. This was felt to combine with a degree of 'informality' - as enjoyed by all medical units in the 'periphery'. It was in no sense a 'lazy' clinique - on the contrary the students tended to feel that they were worked hard and usefully.

e.g. 'Dr. Maxwell himself is really excellent.... he's really on the ball.... he's really amusing, but he really pressures you as well.... They are all good at teaching'.

(Male student, interview)

Another student described the teaching as 'enthusiastic'; he added that the clinicians 'teach things you don't need to know, but are interesting'. He contrasted this with what he called the 'very general' approach of Dr. Burton's teaching. Dr. Maxwell and his colleagues were felt to include sufficiently detailed topics in the teaching - on investigative procedures and 'scientific' medicine. Yet the 'academic' content were not felt to be excessive, and thus detract from the attractiveness of the unit as a whole (as it did in the 'professorial' unit described above). Indeed, if anything, this 'additional' material was felt to add to the students' interest. As one student put it 'most mornings it's very absorbing - on both my

previous cliniques I've been looking at my watch'.

Dr. Maxwell and his colleagues 'laid on' a number of 'extras', that were taken as indicators of their interest in teaching the students, as well as providing occasions when 'informal' staff-student contacts were fostered. Such an 'extra' was provided by regular evening visits from representatives of the pharmaceutical companies; they would come and give promotional displays, show films and so on. These provided an excuse for the staff and students to get together and meet informally over cans of beer.

Like Dr. Burton, Dr. Maxwell had a most distinctive teaching style. Although very different from Dr. Burton's, it too could be (and was) striking and memorable, and also depended upon something of a 'theatrical performance' on Dr. Maxwell's part. At the same time it was vigorous and forceful - forcing students to think fast. Some flavour of this can be conveyed in the following incidents, as described in my fieldnotes. In this first extract we had just completed a bedside session on the wards:

> Dr. Maxwell then took us downstairs to the teaching room. He rushed on ahead; we followed as quickly as we could, in single file strung out down the staircase. Dr. Maxwell was talking rapidly all the time we were going down, but as he plunged on, I couldn't hear a word; those in front of me also appeared to be unable to pick up what he was saying.
>
> In the teaching room Dr. Maxwell asked the students to list the features of initial stenosis (the condition we had just seen in the patient upstairs). In an attempt to demonstrate the principles he was trying to get across, Dr. Maxwell suddenly told James Gough, 'Get out!' Gough looked taken aback, and Dr. Maxwell repeated,
> 'I mean it - get out of that door!'

> He then told Dennis Davies and Gordon Foster to go out of the other door, at the other end of the room. He told all three of them to come in the doors when he told them to. 'In!' he shouted. Gough charged in, but the other door remained shut, with (it transpired) the two boys fumbling with the door handle. When they finally blundered in, everyone was laughing at the performance.

This somewhat startling episode was an attempt by Dr. Maxwell to demonstrate in some vivid way the working of valves in the heart (i.e. the doors) and the simultaneous inrush of blood in the case of incompetence. On this occasion the intended demonstration did not work ideally the first time, and its dramatic impact was lessened when the students had to repeat it. It was, however, a standard routine that the consultant employed, and on at least one previous occasion it had misfired sadly. One student described to me that once Dr. Maxwell had suddenly told one of his group to 'get out', and the hapless student had misinterpreted this as some form of criticism and censure, and had left the wards altogether, in a very distressed state!

Dr. Maxwell's style is also apparent in the following field-note extract, relating to teaching at the bedside of a patient with jaundice:

> Dr. Maxwell asked Jameson for possible signs of vitamin deficiency. 'Weight loss' he replied. 'I'll let him off with that' said Dr. Maxwell. He turned to Graham Kennedy.
> 'Tongue....'
> Dr. Maxwell reported immediately 'Legs!' asking the others 'Which is more important, his tongue or my legs?'

> This was followed by blank looks and silence from all the students. Dr. Maxwell then jumped up and walked off (much to our surprise). He then called to us to pull open the curtains round the bed, and watch him. Dr. Maxwell then limped back to the bedside, imitating the characteristic gait of a person with a drop-foot.

Again the notes reflect the consultant's startling, dramatic and energetic teaching style. This distinctive style also communicated itself to the junior teaching staff, who obviously modeled themselves, to some extent, on Dr. Maxwell. Dr. Maxwell himself had a number of catch phrases with which he punctuated his teaching and encouraged the students. These had also crept into the vocabulary of the junior hospital doctors as they taught the students - rather to the students' amusement (the younger doctors themselves sometimes appeared a little selfconscious and sheepish at this emulation of the consultant). These catch-phrases were so much a 'trade-mark' of the unit that they were even picked up and used by a visiting doctor who was doing a 'locum' consultantship on the wards.

As was apparent in the discussion of the two previous cliniques, students can draw comparisons between their own various attachments. One of the students I interviewed had been with Dr. Maxwell, and the 'professorial' unit described earlier. He was therefore able to draw a comparison between the two cliniques, as well as characterizing Dr. Maxwell's unit in general:

> (The professorial) unit was his first choice, although he added that it was not very good in comparison with Dr. Maxwell's. When I pressed him for his reasons for criticising the wards, he said it was because there was 'less emphasis on teaching'. Also he found the treatment of the patients less 'attractive' - not, he hastened to add, the medical treatment they received, but 'the way they are handled' by the consultants. He

felt that the consultants seemed 'unaware' of the patients in their charge, and to know them less well than did those in (Dr. Maxwell's). He mentioned that he noticed consultants looking at the name at the head of the bed to find out the patient's name. He thought that the doctors on the professorial unit had other things to do, with their specialist interests.

He added as an attractive feature of his term's teaching with Dr. Maxwell the fact that they had discussed the social problems of the patients - again, a feature that was lacking in the term's work on the ('professorial') unit.

He made approving mention of 'the run-around', with Dr. Mazwell, when they spent an hour going round seeing patients individually.... This way, everybody was doing something, and it was much better than standing around doing nothing.

He mentioned that the unit had fewer staff, but were able to find sufficient time, to teach themselves, and sometimes to divide the clinique into two groups.

His impression was also that Dr. Maxwell talked and joked a great deal more with the patients than was done on the 'professorial' clinique.

The 'run-around' to which the student refers is another of the distinctive features of the unit. On a Friday morning, the physicians would select a number of patients for the students to visit. They would often be selected because they exhibited some 'clear' and 'interesting' signs; rather than students taking a history or performing a full examination, they would be instructed to ask briefly about one particular topic ('the chest pain'), or to perform a restricted examination - for instance, looking only at the patient's eyes or hands or whatever. In this way the students could each cover a large number of patients in a short time, gain experience in recognizing

pathognomic signs, and learn the potential importance of close observation of their patients. The students would go round the wards, visiting the patients individually; when all the students had seen all the patients they would all meet again in the teaching room with some of the physicians and compare their notes. This feature of the clinique's organization was something that the students took as evidence of the staff members' interest and involvement with the fourth-year teaching programme. Yet another student expressed similar approval.

> I was down at the ..... Hospital with Dr. Maxwell and Dr. Pound. That was very well organized, the way they did that. Of course it was a smaller group (than the first clinique) of just six, and for the first hour each morning we'd be split up into two groups and one doctor would take each group; and they had one doctor allocated to each system, so if you had a certain doctor, you'd do, say, central nervous system. And if you had any queries about a system, you know, which person to go to, which was quite good. And then the second hour we were all together with one of the consultants, or the senior registrar would take us on a specific topic - maybe show us a patient. On Fridays they had a completely different thing - we either had a long case history, had the whole morning with one patient to do one history and examination, or else what we called the run-around, where they sorted out about ten patients and said 'examine the chest', or the hands, and you'd go round each of the patients and discuss afterwards what you'd found.

Here again, what emerges is a student's approval of the degree of care taken with the <u>organization</u> of the teaching, and the way in which these arrangements were geared to the needs and interests of the fourth-year students.

Yet another of the features that students appreciated was a regular Tuesday evening meeting. This was not arranged exclusively for the fourth-year students, but they were invited to attend, and many did, in the course of the year. This particular unit did not have a 'waiting night' as such, and this evening meeting took its place. The meeting was in the nature of a clinical meeting or conference, combined with a ward round. In the course of the meeting, students could see patients who had come into the wards in the previous days (as in 'waiting nights') and others they had already seen in the course of teaching rounds, or earlier evening meetings:

> In surgery I've never really established a relationship with a patient. That's the great advantage of Tuesday evenings with Dr. Maxwell. Its fantastic to see patients as they progress.... He takes you round his patients every week or fortnight; you see the same patients and you can see how they've improved.... it would be a really great help if you could know how they're being <u>treated</u>. They always say 'We'll tell you how so-and-so is getting on', but it's something that tends to get neglected.
>
> (Interview with male student)

Thus the arrangement of these evening meetings by Dr. Maxwell goes some way to repairing the perceived shortcomings of fourth-year teaching. That is, the teaching tends to be very episodic in nature, and students are not always able to follow a patient through his or her hospital career. The regular evening meetings provide a degree of continuity in students' observation of patients and acquaintance with their progress.

Two themes emerge from a consideration of this clinique, therefore - Dr. Maxwell as a 'character', and the organization of teaching. This latter component of the unit's reputation was very salient. The clinique

was frequently referred to specifically as 'a good teaching unit'. As such it was regarded as probably the 'best' available unit for the fourth-year students to receive their introduction to medicine. Unlike Dr. Burton's unit, however, this excellence was not felt to be confined to fourth-year studies. It was also a favoured clinique for Final Phase attachments, and, therefore, for appointments as house-physicians after that. The unit 'atmosphere' was believed to combine the most desirable features of 'informality' in personal relationships, rigour and coverage in academic material, good organization and an enthusiastic and conscientious teaching staff.

In so far as Dr. Maxwell was 'a bit of a character', even unique (he's <u>different</u>', as one boy put it), students' perceptions of him were not entirely unambiguous. I have already tried to convey a sense of his style - as dramatic and startling. Some students regarded this with some misgiving, worrying that 'you never know where you are with him'. In a similar way, they sometimes looked askance at his 'extra mural' goings-on. During my early days in the field, Dr. Maxwell made an appearance in students' gossip about cliniques and consultants. The current story was that Dr. Maxwell had challenged his students to a race round Arthur's Seat (an outcrop some 800 feet high, in Edinburgh's Holyrood Park). Whilst some approved of this apparently light-hearted approach, others were certain that they did not wish to mix their academic relationships with extra-curriculla activities. They preferred to keep a clear distinction between teachers and taught, and each keeping in his or her place. They did not wish their relationships to be stiff and formal, but they wanted them to be at least <u>predictable</u>. The following lengthy anecdote from a male student also draws attention to a sense of ambivalence vis-a-vis Dr. Maxwell:

P.A. You said you weren't sure how you got on with Dr. Maxwell?

St. No, I'm still not very sure. I never know - you know, usually you know what somebody's wanting from you - people are wanting to see a certain level of amusement, and, you know, you laugh at their jokes and don't make any yourself, and a certain level of interest in their teaching and in their patients....
(He sought for an example of difficulty with Dr. Maxwell)

Oh, here, when we want to ..... Hospital, the first time we went the doctor didn't turn up and we had an hour free to drink coffee and tons of free biscuits. And the coffee was really good, so we we're quite happy.... The second time we went Dr. Maxwell was there on the dot, you know. He came in while we were drinking coffee and said, 'Well, I'm very sorry, but we don't have very many interesting patients to show you', and he went on like this, how it was mostly just convalescent type patients they had in. And I said, 'Oh, it's all right, were only here for the beer' - meaning the coffee, you know. I got a look from him, and thought maybe I shouldn't have said that. Then two weeks later we were talking about a man that was jaundiced.... and we'd been over all the causes of jaundice. We'd got a whole list up on the board, and he said, 'Another one, another one' ..... and then he said 'Mr. Finnegan....' I said, 'Yeh'.
He said, 'Come on, you should know - your favourite one. Come on, two weeks ago you mentioned it!' I couldn't think of it. 'Comeon, at.....: we're only here for the ....?' and I said 'Oh, alcoholism'. And he said, 'That's right'. And I was really shocked that he'd remembered what I'd said and who'd said it. It made me very wary of him, 'cos obviously he'd a tremendous memory for things like that, and

> wondered whether he'd ever remembered any of the good things I'd done - if I ever did any! But I'm sure I must have put a few black marks beside my name, 'cos this was right at the end of term.

The students' comments and perceptions regarding both Dr.Maxwell and Dr. Burton highlight the importance of 'characters' among the staff members in student mythology. Roger Brown (1965) remarks:

> Role norms vary in their uniqueness. A college teacher must meet classes and submit grades. He definitely ought to award grades on the basis of competitive achievement rather than on the grounds of personal liking, friendship with a student's family, or bribes from a student's father. It is strongly recommended that he read examinations carefully, arrive at his classes on time, and refrain from telling students how to vote in an election. If he smokes cigarettes while lecturing or wears tennis shows to class, he violates norms that are not crucial and the sanctions applied are mild. Probably he will pick up a reputation as a 'character' but not be reprimanded by the dean. It is interesting that one acquires a 'character', a perceptible personality, by violating minor role norms.
>
> (Brown, 1965, p.155).

The precise content of such norms, and what counts as normal and tolerated behaviour varies, of course, in time and place. Brown's own prescription for 'normality' here is culture-specific. But the general point he makes is a soumd one. The infringement of certain tacit norms of interaction can give rise to a certain sort of 'reputation'. 'Characters', like Drs. Burton and Maxwell are unpredictable, and difficult to manage from the students' point of view. 'You never know where you are' with them for this very reason.

They are generally approved of for their degree of personal investment in their teaching; yet the nature of this investment can also make the students somewhat uneasy. It is this which gives rise to the feelings of ambivalence with which such 'characters' are viewed. In Dr. Burton's case, his status as a 'character' meant that he was differentially evaluated by those 'insiders' who had first hand experience of his clinique, and 'outsiders' who knew him only by repute. For the 'outsiders', his infractions of normal and expected behaviour were stressed, to the extent that he was seen as something of a 'folk devil' (cf. Cohen, 1973). The 'insiders' tended rather to tolerate these infringements, and to set them against what they saw as more desirable attributes. Thus they often regarded him with that mixture of affection and exasperation which is often reserved for 'characters' of various sorts. This can be illustrated in notes I took just after I had stopped working on Dr. Burton's unit; I met the members of the clinique in the hospital canteen at coffee-time one morning.

> I joined the students from Dr. Burton's unit. They told me, 'You should have been there this morning, as Dr. Burton had been 'in top form' - 'very arrogant', 'tearing everybody to pieces', and 'upsetting everybody'. They seemed fairly cheerful about it, though, and I couldn't detect any lingering feelings of depression or fear in any of the students. They seemed to regard it as just another 'typical performance' on Dr. Burton's part.

Although Burton and Maxwell were the two major 'characters', there were others in the students' mythology. Students would regale me with tales of them, and would enjoy telling me what I had 'missed' if I had been absent from the wards for a day or two.

When I went to the canteen, I sat with James Baxter and Michael Jenkinson. Between them they told me that I had missed a 'typical performance' by Dr. Bruce Callaghan. They said that he had taken them to a patient, had said nothing to her, and told the students that this was 'an interesting patient' with 'distinctive heart sounds'. He had then listened to the heart sounds himself, suddenly looked at the patient in surprise and discovered that it was the wrong patient. (They mimicked his 'double take').

They also told me that Bruce Callaghan took them to a patient who was writhing about in bed, in some pain. In the course of examining the patient he had managed to expose her completely whilst pulling out the bedclothes to demonstrate various points of interest. Meanwhile, they said, the patient was complaining that she was in pain, and was dying. Dr. Callaghan just turned to her and 'Shushed' her. They told me that Dr. Callaghan had said that the patient was obviously 'not feeling very cheerful' and that he shouldn't really be teaching on her. 'But', Baxter added, 'He didn't stop'. In addition to all this, they had found his teaching 'above our heads'.

This consultant was often characterized as 'living in a world of his own', taking little notice of either students or patients. He was one of the consultants on the professorial unit referred to above, and the students recognized him as 'brilliant' in the field of academic medicine and clinical research. But they thought he was always wrapped up in his ideas, and rarely 'came down to earth' sufficiently often. (The frequent use of this consultant's first name seemed to indicate a spirit of amused tolerance with which the students regarded him).

In their various ways, these three 'characters' achieved their

importance for the students insofar as they embodied certain 'virtues' and 'vices' in the students' perspectives on clinical medicine. Dr. Callaghan was seen to combine intellectual eminence with a lack of ability and sensitivity in relationships with students and patients. Dr. Burton, as I have described, combined a personal interest in students and patients with 'old fashioned' stress on strong control, formality and 'correctness'. Dr. Maxwell combined enthusiasm and ability in teaching with a somewhat unpredictable personal style. Figures such as these stand out, either as 'heroes' or 'villains' by virtue of their various idiosyncracies. They represent the personification of significant elements in the students' perspectives on their day-to-day experience of clinical medicine.

The nature of 'characters' and their personal styles therefore confronts the students with problems of ambiguity and discrepancy. This is so on two counts. As we have seen, the consultants themselves are not necessarily consistent and predictable in their own behaviour. In addition, insofar as they have idiosyncratic personal preferences, they can differ radically from each other. Thus students can find themselves faced with the necessity of learning to adapt their student activities to such competing demands. This requirement on the part of the students gives rise to the process which Olesen and Whittaker (1968, pp.150 ff.) refer to as 'psyching out', as a necessary accomplishment in the 'act and practice of studentmanship'. Olesen and Whittaker comment,

> ....the student was pressured into formulating an understanding not only of the general norms of identity requirements, but also of the variations introduced upon these norms by individual members of the faculty and by different clinical areas.
>
> (p.161).

If the medical students are therefore to pass competently and successfully with their clinical teachers, they need to take account of their preferences. Each consultant may have his own approach to bedside examination and history-taking, and require the students to do things in his 'pet' fashion. Students must therefore be adaptable, and 'psych out' the clinicians' requirements.

Dr. Burton was one of those clinicians who made an issue of students' adherence to his own clinical methods. I have already mentioned his insistence upon 'rhetoric' and the use of a particular style in answering his questions and presenting a case history. The students were not always successful in emulating Dr. Burton's verbal style, but on occasion they did so - much to his satisfaction:

> When it came to examining his patient, John diagnosed a myocardial infarction. Dr. Burton asked him which artery was obstructed. John replied, 'From the history and from my examination, Dr. Burton, I cannot tell'. Dr. Burton appeared to be perfectly satisfied with this answer.

It would have been unusual for a student to answer a consultant in so formal a manner on other units, but this corresponded to the sort of formula that Dr. Burton exhorted his students to use.

In a similar way, students would simulate Dr. Burton's physical style in physical examination and procedures. At the end of their term on the wards the students had a brief, informal examination in clinical methods - a sort of 'practical' text of their skills. After this 'ordeal' the students compared notes.

> Jane and John compared notes on their performance in the 'examination'. They talked about the urine samples they

> had been asked to comment on. Jane said she shook it, and held it to the light, to look at the play of the light on the surface. But, she said, she had spilled some.'

The precise reference of this student's description of her performance with the urine samples was a session with Dr. Burton some days earlier. Dr. Burton had complained that students nowadays have no ability in observing and examining urine. He had spent a considerable amount of time on this topic with them - emphasizing how, for example, they should look for any abnormal colour, sediment, and 'the play of light' on the surface. He himself had held the urine up to the light, and swirled it round in a manner reminiscent of a wine connoisseur with a fine vintage. Thus Jane's careful rehearsal of Dr. Burton's style - and the rather Pathetic conclusion of her tale - is symptomatic of how students selfconsciously aped Dr. Burton's techniques and mannerisms. Often, apparently, with their tongue in cheek, they would do their best to imitate his most cherished idiosyncracies; all to often, they failed to carry them off.

A further example of this was furnished when the clinique members went from Dr. Burton's wards to another unit, for assessment by the other unit's staff; students of the equivalent clinique meanwhile came across to Dr. Burton. Subsequently the students were amused at the reception they had received. When they had gone through Dr. Burton's own lengthy and elaborate procedures for examination, the other staff members had been rather amused, and had pointedly told them to 'get on with it'.

2.5 : Segmentation in the Medical School: An Alternative Approach

This section takes a rather different approach to the theme of segmentation and students' clinical experience. It is based on the self-adminstered questionnaire referred to in the section describing the conduct of the research.[1] The 'student culture' embodies certain beliefs concerning differences between segments of the medical school. The questionnaire makes it possible to compare students' reported experiences in their cliniques, and to examine if differences are indeed detectable between the two segments.[2]

The questionnaire items that related to clinical units were basically of two sorts. Most of the relevant questions asked the students to report on their perceptions and experiences derived from the particular unit to which they were attached at the time of the survey. Since it was conducted during the third term of the year, students were then attached to medical and surgical units. Hence the responses to these items made possible some systematic comparison between the various types of attachment. In addition, by this time, the students had all completed their three attachments to both medical and surgical cliniques. It was therefore possible to ask the students to make a number of explicit comparisons between the two specialties, as they had experienced them over the year. Students were asked to indicate all three cliniques they had attended over the year, and this information made it possible to identify their third attachment, for

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1. The data presented here are reported in Atkinson, 1973 and 1974, appended to this thesis.

2. A similar concern is reported by Miller (1970), who set out to discover if his interns' beliefs concerning the distinctiveness of their work was matched by objective differences in comparison with a group in a suburban hospital. Rather than use a questionnaire, however, he relied on a brief period of observation, using time-sampling techniques (p.208 ff.).

the purposes of these comparisons. The questionnaire items included were not designed to provide a profile of all possible characteristics of the clinical units, but rather to provide information about features which had appeared to be particularly salient in the students' shared perspectives.

The relevant results from this survey of students' clinical experience and the organization of teaching in the clinical units are summarised in the remainder of this section. First I shall present the comparisons between medicine and surgery.

Medicine and Surgery

The first items to be considered are those in which the respondents were asked to make direct comparisons between their experiences in the two specialities. The fieldwork had suggested that the students' perceptions concerning these two subjects were related to their sense of involvement in the work of the units. The first question to be considered here attempted to tap such differences. The item itself was adapted from the survey prepared for the Royal Commission. That questionnaire had asked for final year students' general self-perceptions as clinical students, over all phases and attachments in the clinical phases of their course. In the Royal Commission survey, the students were presented with four categories of response: 43.0 per cent thought of themselves as 'apprentices in a medical team'; 31.6 per cent as 'passive observers of medical practice'; 20.1 per cent as 'university undergraduates'; 5.3 per cent as 'students at a technical school'. In the design of their questionnaire, the authors of the survey made no provision for the identification of possible differences in students' experience in

different specialities or different hospitals. But the need for greater sensitivity to contextual variation in such self-perceptions was demonstrated by the fact that the students found 'a number of students who said that at times they felt as apprentices in a medical team and at other times as passive observers of medical practice' (p.351). For the Edinburgh fourth-year students, the category 'student at a technical school' was dropped, and the other three categories only were offered. The students were asked to respond separately for medicine and for surgery. Splitting the question in this way highlighted a sharp contrast between medical and surgical attachments. The results, presented in Table 2.3, show that whereas the majority of students (58 per cent) thought of themselves as 'apprentices' in medicine, in surgery the majority (56 per cent) thought of themselves as 'passive observers'.

Table 2.3 : Students self-perceptions

	Medicine		Surgery	
Apprentice	63	58%	29	27%
Student	17	16%	19	17%
Passive observer	29	27%	61	56%
Total	109		109	

Note: The figures shown in Table 2.3 are not derived from independent samples, and so the usual test of significance of differences is not appropriate here. The usual tests of significance for related samples are not ideal either. The McNemar test requires that the data be dichotomous, while the Wilcoxon matched-pairs signed ranks test require the data to be ordinal. In this case the differences are so large as to make any test of significance of academic interest only. If the data are dichotomised into 'apprentice' and 'not apprentice', and the McNemar test performed, the difference is significant, $p < .001$.

The students' responses to this first item closely resemble the picture derived from the fieldwork. Although they are not unanimous of this score, there is a very marked difference between the two specialties. In medicine, the students reported more often that they had been incorporated into the unit, as 'junior partners'. In surgery, on the other hand, the commonest pattern was for students to feel themselves to be 'outsiders' or 'onlookers' rather than being involved in the life and work of the unit.

The picture of medicine and surgery is also reinforced in the responses to a second item - that relating to how the students saw themselves vis-a-vis patients. They were asked to judge how they had been perceived by the patients they had encountered in medicine and surgery. The students were given four categories for response: 'a junior doctor'; 'a nurse or orderly'; 'a student'; 'they don't know what to make of you'. The respondents were asked to make this judgment for each of the specialties separately. As can be seen from the results presented in Table 2.4, there was a strongly marked difference between them. Whereas the majority checked the role of 'junior doctor' for medicine, (63 per cent), the majority view for surgery was 'student'. The responses to this item, therefore, also appear to reflect students' feelings of relative subordination in surgery, and of closer involvement with their clinical teachers in medicine.

Table 2.4 : Students beliefs of patients' views of them

	Medicine		Surgery	
Junior doctor	70	63%	42	38%
Nurse/orderly	1	1%	2	2%
Student	32	29%	58	52%
Don't know what to make of you	9	8%	8	7%
Total	112		110	

Note: The same comments apply here as to Table 2.3. Dichotomizing the date into 'junior doctor' and 'other', the difference is significant, p <.001.

A further item was again adapted from the Royal Commission survey. This related to the ease with which students felt they had formed personal relationships with their patients. The experience of personal contact with patients was an important consideration for the students in evaluating the quality of their clinical experiences. As with all such questions, the Royal Commission survey made no distinction between different aspects of students' clinical phase. In that survey, two questions were asked: one inquired after students' current ease or difficulty with such relationships; the other asked if students had experienced difficulty initially, in the early days of their clinical work. The Royal Commission reported that 93 per cent of the final-year students stated that they had 'no difficulty' in establishing relationships with patients, but 33 per cent stated that they had experienced such difficulties in the past: 'Those who experienced difficulty at the end were definitely the same who experienced difficulty before', the authors continue, and they suggest that such difficulty with patient relationships may therefore be a

reflection of enduring personality characteristics (p.350). By splitting the question between medicine and surgery for the fourth year students, it was possible to demonstrate that there are strong institutional influences on such relationships, as well as possible personality factors. The students were offered four categories of response to the question, 'Have you experienced any difficulty in establishing effective relationships with patients over the year?'. They were: 'considerable difficulty'; 'moderate difficulty'; 'slight difficulty'; 'no difficulty at all'. The results for this item are summarised in Table 2.5. In medicine, the number reporting 'no difficulty at all' approximated to the two-thirds identified in the Royal Commission's survey, and less than 10 per cent stated that they had encountered 'moderate' or 'considerable' difficulty. In surgery, on the other hand, only 42 per cent of the students reported 'no difficulty', while almost one third of the students had encountered 'moderate' or 'considerable' difficulty. The survey results show therefore that many students had indeed found a difference between the two specialities in terms of their relationships with patients.

Table 2.5 : Establishing relations with patients

	Medicine		Surgery	
Considerable difficulty	1	1%	12	11%
Moderate difficulty	9	8%	20	18%
Slight difficulty	39	35%	33	30%
No difficulty	63	56%	47	42%
	112		112	

By the Sign Test, p. <.001

The students' responses to these three general items, then, combine to present a coherent picture of students' position in the two specialties of medicine and surgery. Medicine emerges as offering the student greater opportunities for patient-contact, and an environment where he can feel himself to be in the role of 'junior colleague' in relation to his teachers. The student's position in surgery appears to be more subordinate - that of the outsider or mere observer, with less opportunity for contact with patients. A comparison of medicine and surgery in this way, where each students reports his or her experience in each specialty, again draws attention to the segmented nature of students' experiences in the medical school.

Further items on the questionnaire related only to the specific units to which the students were attached at the time of the survey. In the first instance I shall continue the comparison between medicine and surgery. The students' perceptions of their relationships with their clinical teachers were examined. These were investigated in the context of both personal staff-student contacts, and 'academic', work-related contacts. In the questionnaire items a distinction was made between students' perceptions of their relations with staff at different grades - between consultants and doctors at more junior grades. The questions were presented in an 'open-ended' fashion and were coded subsequently. Students' replies were reduced to three categories - these that were unequivocally positive or negative, with an intermediate category of the sort 'to some extent, I suppose', 'perhaps' and so on.

Few of the consultant staff in either specialty were definitely thought to have developed any degree of personal relationship with their students. In a comparison between the two specialties,

however, there were more students in medical units than from surgical attachments who thought that their consultant teachers had got to know them personally. These responses are presented in Table 2.6.

Table 2.6 : Students known personally by consultant teachers

	Medicine		Surgery	
'Yes'	15	25%	6	12%
'Perhaps'/'To some extent'	14	23%	10	20%
'No'	31	52%	34	68%
Total	60		50	

$\chi^2 = 3.78$, df = 2, n.s.

Rather more personal contact was reported in both specialties with staff below consultant grade - and here again the medical units appeared to have fostered more frequent feelings of personal contact between the teachers and the taught (Table2.7).

Table 2.7 : Students known personally by junior staff

	Medicine		Surgery	
'Yes'	34	57%	18	35%
'Perhaps'/'To some extent'	7	12%	16	31%
'No'	19	32%	17	33%
Total	60		51	

$\chi^2 = 7.88$, df = 2, $p < .02$.

This pattern was repeated when it came to specifically academic matters. Once again, few of the students from either specialty were at all confident that their consultant teachers had formed a close knowledge of their work and ability over the term; such a belief, however, was reported more frequently by students currently attached to medicine than by those from surgery (Table 2.8).

Table 2.8 : Students' work and ability known by consultants

	Medicine		Surgery	
'Yes'	8	14%	1	2%
'Perhaps'/'To some extent'	16	27%	8	16%
'No'	35	59%	41	82%
Total	60		50	

$\chi^2 = 7.89$, df = 2, p <.02.

As one might expect, more students in each specialty thought that members of staff below consultant grade had been able to arrive at some knowledge of their work. The distinction between the two specialties was maintained, however, and the junior physicians were more frequently reported to have achieved some knowledge of students' work and ability than their counterparts in surgery (Table 2.8a).

Table 2.8a: Students' work and ability known by junior staff

	Medicine		Surgery	
'Yes'	25	42%	12	24%
'Perhaps'/'To some extent'	17	28%	10	20%
'No'	18	30%	28	56%
Total	60		50	

$\chi^2 = 7.71$, df = 2, p <.025.

This distinction between medicine and surgery is also reflected in the questionnaire item relating to the supervision of students' work. The students were asked if there were regular opportunities to discuss their work with any of their teachers. This item was also open-ended in form, and was subsequently coded into three categories of 'positive',

'negative' and 'intermediate' (this last category was used to cover responses which did not indicate regular opportunities, but where students replied that they discussed their work with clinicians 'every now and again'). As can be seen from the responses given in Table 2.9 there was a difference between the two specialties on this score - students in medicine more frequently reporting such opportunities.

Table 2.9 : Opportunities for students to discuss their work with clinical teachers

	Medicine		Surgery	
'Yes'	26	44%	14	28%
'Intermediate'	23	39%	28	50%
'No'	10	17%	11	22%
Total	59		50	

$\chi^2 = 3.00$, df = 2, n.s.

The results of these questionnaire items are consistent with the overall picture embodied in the 'student culture'. At each level of clinical staff, physicians were more frequently reported to have developed some contact with the students than were the surgeons, and to have provided regular occasions for the supervision of the students' work.

Medical and surgical units appeared to be sharply contrasted in their approaches to teaching and in students' evaluations of the educational provisions of their different attachments. The picture of surgery that emerged from the fieldwork was that the surgeons relied on a far more 'formal' and 'didactic' approach, whilst the physicians were thought to place greater stress on students' involvement in clinical work. It is such a perception that gives rise to the students' views of

themselves as 'outsiders' in surgery and 'apprentices' in medicine. The students in surgery were often irked by the relative stress on small-group tutorials or lectures in the teaching-room in surgery - as it seemed to them, at the expense of the more engrossing aspects of clinical work. These aspects of educational provision and student experience were therefore explored in a number of questionnaire items.

Students were asked to indicate whether their clinical attachments had provided regular tutorials on specific topics. Whilst all units use some tutorial/small group teaching, they appear to vary in the extent to which this was a regular, scheduled part of the term's work. There was a marked difference between medicine and surgery from this point of view; such regular tutorial provision appears to be a more frequent part of surgical teaching than that in medicine ITable 2.10).

Table 2.10 : Provision of regular tutorials

	Medicine		Surgery	
Yes	19	32%	45	87%
No	41	68%	7	13%
Total	60		52	

$\chi^2 = 32.05$, df = 1, p <.001.

The students were also asked to evaluate the amount of time devoted to regular tutorials. They were asked whether they took place 'too often', 'not often enough', or were 'about right'. Twenty-two per cent of students in surgery thought they had been 'too often', as against only 4 per cent in medicine. However, it must also be noted that 28 per cent of students in medicine thought that more regular

provision of such teaching sessions would be appropriate, as against only 8 per cent in surgery.

Regular courses of tutorials do not exhaust the possible allocation of time to work in the teaching-room. Two further items were therefore included to examine the perceptions of the relative allocation of time to tutorials/lectures and bedside teaching/ward work in the two specialties. The students were presented with five categories of response for each question. They were asked if the allocation of time was 'much too little', 'a bit too little', 'a bit too much', 'much too much' or 'about right'. For the purposes of presentation (Tables 2.11 and 2.12) the responses have been collapsed to form three categories.

Table 2.11 : Students' evaluation of proportion of time spent in tutorials/lectures

	Medicine		Surgery	
Too little	10	17%	4	8%
About right	44	73%	21	40%
Too much	6	10%	27	48%
Total	60		52	

$\chi^2 = 23.6$, df = 2, p <.001.

Table 2.12 : Students' evaluations of proportion of time spent in ward-work/bedside teaching

	Medicine		Surgery	
Too little	11	18%	27	55%
About right	45	75%	21	41%
Too much	4	7%	2	4%
Total	60		50	

$\chi^2 = 16.18$, df = 2, p <.001.

As one might expect from the collective wisdom of the student culture, and from the preceding questionnaire results, students attached to surgical units more frequently reported that 'too much' time had been spent in the teaching room. In medicine, 73 per cent of the students thought that the allocation of time to work in the teaching room was 'about right', whereas only 40 per cent of those in surgical attachments expressed such satisfaction. (Once again it must be noted that a sizeable minority of those in medical attachments would have liked more teaching of the tutorial type - 17 per cent). Correspondingly, students who were attached to surgical units more frequently expressed dissatisfaction with the amount of ward work and bedside teaching they had experienced than did those in medicine. Seventy-five per cent of the students from medicine thought that the allocation of time to the wards was 'about right', an opinion that was shared by only 41 per cent of those in surgery. On the other hand, 55 per cent of students in surgery thought they had had 'too little' ward work and bedside teaching, compared with 18 per cent of those in medicine.

The activities of bedside teaching and other work in the wards are one area in which students can develop a sense of involvement and participation in the routine, 'real' work of clinical medicine and surgery. As the questionnaire results underline, such opportunity for involvement is available to the students less frequently in surgery.

The students were also asked about ward meetings and clinical conferences. As a teaching method, the ward meeting itself may often be poorly suited to the needs of fourth-year students. Students might complain, for instance, that most of the discussion in such meetings goes 'over their heads', as the staff and more senior students

confer over patients. Nevertheless students also describe attendance at such meetings as 'interesting' insofar as it provides an opportunity to observe, and occasionally participate in, the clinical work of the unit as a whole. The students were asked whether there were regular opportunities for them to attend such meetings or conferences. Their responses are detailed in Table 2.13.

Table 2.13 : Opportunities to attend ward meetings/clinical conferences

	Medicine		Surgery	
Yes	39	66%	14	27%
No	20	34%	38	73%
Total	59		52	

$\chi^2 = 15.47$, df = 1, p <.001

The opportunity for students to attend such gatherings, and to experience such involvement, was available to the majority of students from medical units, but to comparatively few in surgery.

Students were also asked for their opinions concerning the doctor-patient relationships that they had observed on their attachments. Observations and interviews had suggested that surgeons were typified as enjoying less satisfactory relationships with their patients than did physicians. These perceptions were reflected in the questionnaire replies. Students were asked to comment on the relationships between their clinical teachers and their patients. The question was one which was coded subsequently, and four categories of response emerged.[3] There were responses that were ambiguously

3. It is noteworthy that there was a fairly high rate of non-response to this question, and some of these students explicitly commented that they believed it 'inappropriate' for them to presume to comment on such matters.

classifiable as 'positive' or 'negative' in character. There were also those which were 'intermediate' in character (such as 'not bad'). In addition, some students specifically replied that they noted a difference between staff of different grades - that consultants appeared to them to have less good relationships with their patients than did the more junior staff. There were sufficient responses to this type to warrant the creation of a separate category (although many of the 'intermediate' replies may have masked such feeling, without making them explicit). Students in medical units are more frequently reported approval of doctor-patient relationships than did those on surgical units (see Table 2.14).

Table 2.14 : Students' perceptions of doctor-patient relationships in their clinical attachments

	Medicine		Surgery	
'Positive'	38	70%	21	42%
'Intermediate'	10	19%	17	34%
'Junior staff better than consultants'	5	9%	5	10%
Negative	1	2%	7	14%
Total	54		50	

In 4 x 2 form, expected cell frequencies too low for calculation of χ^2. If the second and third categories are combined to form a single 'mixed' category, then $\chi^2 = 10.58$, df = 2, $p < .01$.

'Centre' and 'Periphery'

The second major distinction students make in typifying clinical units is that between so-called 'centre' and 'periphery'. The questionnaire responses are therefore used to examine potential

differences in students' experiences in units of the two types. For a number of the questionnaire items there were consistent differences between 'centre' and 'periphery' which held across both medicine and surgery. Some characteristics which differentiated medicine and surgery also distinguished betweencentre and periphery, as did some which had not differed between the two specialties.

The items relating to tutorial provision highlighted differences between central and peripheral attachments. On the question of regular and scheduled tutorial attachments. On the question of regular and scheduled tutorial provision, students in both subjects more frequently reported such arrangements from central units than did those from the periphery (Table 2.15).

Table 2.15 : Provision of regular tutorials

	Medicine				Surgery			
	Centre		Periphery		Centre		Periphery	
Yes	16	53%	2	7%	32	97%	13	68%
No	14	47%	27	93%	1	3%	6	32%
Total	30		29		33		19	

Centre/periphery across both specialties, $\chi^2 = 22.41$, df = 1, $p < .001$.

Similar differences were reflected in students' evaluations of the relative proportion of time devoted to the tutorials/lectures and to ward-work/bedside teaching. There was a tendency for students from central attachments to report that they were having 'too much' tutorial work more frequently than those from the peripheral units. Rather more from the periphery reported that the allocation of time was 'about right', and a higher proportion from the periphery thought

that 'too little' time had been devoted to tutorial teaching. (see Table 2.16)

Table 2.16 : Students' evaluations of relative proportion of time spent in tutorials/lectures

	Medical				Surgery			
	Centre		Periphery		Centre		Periphery	
Too little	3	10%	7	24%	2	6%	2	11%
About right	23	77%	20	69%	10	30%	11	58%
Too much	4	13%	2	7%	21	64%	6	32%
Total	30		29		33		19	

Centre/periphery across both specialties, $\chi^2 = 8.06$, df = 2, $p < .02$.

When we turn to the corresponding question relating to the relative amount of time spent in ward work and bedside teaching, the difference between the two types of unit is repeated. In both specialties, more students in central units reported that there was 'too little' work on the wards than did so in peripheral units (Table 2.17). Students were therefore more frequently satisfied that the proportion of time was 'about right' in peripheral attachments in both medicine and surgery.

Table 2.17 : Students' evaluations of relative proportion of time spent in ward-work/bedside teaching

	Medicine				Surgery			
	Centre		Periphery		Centre		Periphery	
Too little	9	30%	2	7%	21	64%	7	39%
About right	20	67%	24	83%	11	33%	10	56%
Too much	1	3%	3	10%	1	3%	1	6%
Total	30		29		33		18	

Cell frequencies in 'too much' row too small for computation of χ^2.

Student culture distinguished centre and periphery in terms of the relative interest and enthusiasm displayed by the clinical staff for fourth-year teaching. Although the question relating to this perception did not yield any difference between medicine and surgery, it did produce a difference between centre and periphery. The students were originally presented with four categories of response: 'none of the staff seems very interested in teaching us'; 'a few of the staff....'; 'most of the staff....'; 'all of the staff....'. For the purposes of analysis and presentation the responses have been condensed into a two-fold classification (Table 2.18).

Table 2.18 : Students' perceptions of clinicians' relative interest in teaching

	Medical				Surgery			
	Centre		Periphery		Centre		Periphery	
None/few interested	12	40%	1	3%	8	24%	0	-
Most/all interested	18	60%	28	97%	25	76%	19	100%
Total	30		29		33		19	

Centre/periphery across both specialties, $\chi^2 = 13.32$, df = 1, $p < .001$.

In both specialties the students from central units more frequently reported that 'none' or 'few' of the staff had been interested in the teaching - indeed only one student from a peripheral unit in either medicine or surgery expressed such an opinion. The majority of students in all types of attachment felt that all or most of their teachers were interested in their teaching, but where doubt existed on this score it was in the central units that it was expressed.

Another feature of students' views of clinique orientations concerned the distinction they drew between 'science' and 'practice'. No doubt in the context of contemporary hospital medicine such approaches should be seen as complementary. However, the students appear to treat these orientations as alternatives, and even as competing orientations; commitment to scientific research is seen as potentially inimical to satisfactory doctor-patient relationships.

The distinction between 'science' and 'practice' is used by students to distinguish between 'centre' and 'periphery'. In one item the students were asked to indicate whether they thought the approach of their clinical unit was primarily 'research and scientifically-oriented medicine', 'practice and patient-oriented medicine', or whether the staff were 'equally interested in both'. The replies to this item are presented in Table 2.19. No student from a peripheral unit in either specialty saw their unit's orientation as primarily 'scientific' in nature, whereas 17 per cent of those in medical, and 12 per cent of those in surgical units in the Royal Infirmary held this view. By the same token, more students from peripheral units reported the view that the staff had a 'patient and practice' orientation.

Table 2.19 : Students' perceptions of the orientations of their clinical units

	Medical				Surgery			
	Centre		Periphery		Centre		Periphery	
Scientific	5	17%	0	-	4	12%	6	-
Both	9	30%	21	72%	14	42%	12	63%
Patient and practice	16	53%	8	28%	15	46%	7	37%
Total	30		29		33		19	

Centre/periphery across both specialties, $\chi^2 = 14.58$, df = 2, $p < .001$

A related concern was the degree of specialization of a unit's work - 'scientific' medicine frequently appears to be associated with a degree of specialization in the sort of conditions treated and investigated by the clinicians in a given unit. The students were asked to indicate whether they thought that their unit's clinical interests were 'very specialised', 'fairly specialised', 'fairly general' or 'very general'. The results for this item are presented in Table 2.20. Since only one student in any type of unit saw it as 'very specialised', this category has been combined with 'fairly specialised'. As can be seen, students from the centre, in both specialties, more frequently reported that their clinical attachments showed a degree of specialization, while those from the periphery tended to report that their unit's interests were 'very general. But students in all types of unit were mostly satisfied with the amount of specialist teaching that they received. They were also asked to indicate whether they thought that the teaching of specialised interests had been 'too often', 'not often enough' or 'about right. The great majority of students in all types of unit believed that the amount had been 'about right' in medicine the proportions were 96 per cent of those in central units, and 88 per cent in the periphery; in surgery the corresponsing figures were 81 per cent and 88 per cent respectively.

Table 2.20 : Students' perceptions of the degree of specialization of their clinical units

	Medical				Surgery			
	Centre		Periphery		Centre		Periphery	
Very/fairly specialised	9	30%	6	21%	10	30%	3	16%
Fairly general	21	70%	13	45%	21	64%	9	47%
Very general	0	-	10	35%	2	6%	7	37%
Total	30		29		33		19	

Centre/periphery across both specialties, $\chi^2 = 19.96$, df = 2, $p < .001$.

A further dimension employed to distinguish centre and periphery concerns the level of effort demanded. That is, central units are believed to be more 'high-powered' than those in the periphery. Students were asked to evaluate the academic levels of their units in terms of five categories: 'much too high'; 'a bit too high'; 'a bit too low'; 'much too low'; and 'about right'. For kkk purposes of analysis and presentation these categories have been condensed into three. Relatively few students in any variety of clinical unit were very critical, but a trend is discernible among the responses. Of those who were dissatisfied with the academic level, a higher proportion in both specialties made the complaint that the level was 'too high' in central units, and 'too low' in peripheral units (see Table 2.21). In medicine the differences are very slight indeed, but the trend is rather more marked in surgery.

Table 2.21 : Students' evaluations of the academic level of clinical units

	Medical				Surgery			
	Centre		Periphery		Centre		Periphery	
Too High	3	10%	2	7%	4	12%	1	5%
About right	25	83%	23	79%	24	73%	11	58%
Too low	2	7%	4	14%	5	16%	7	37%
Total	30		29		33		19	

Centre/Periphery across both specialties, $\chi^2 = 3.20$, df = 2, n.s.

The items relating to students' relationships with their clinical teachers were also used to compare the centre/periphery difference. Table 2.22 gives a summary of the replies to the item

investigating whether clinicians had got to know them personally.[4] In addition to the difference between grades of staff and between medicine and surgery, students more often reported such personal relationships in peripheral units.

Table 2.22 : Students' reports of clinical teachers who had known them personally

	Medical				Surgery			
	Centre		Periphery		Centre		Periphery	
Consultants	13	43%	16	55%	7	22%	9	50%
Junior Staff	24	80%	17	59%	19	58%	15	83%

The difference between the centre and periphery is rather less marked when it comes to students' beliefs as to whether their teachers had gained a knowledge of their work and ability (Table 2.23).

Table 2.23 : Students' reports of clinical teachers who had known their work and abilities

	Medical				Surgery			
	Centre		Periphery		Centre		Periphery	
Consultants	9	30%	15	54%	6	18%	3	18%
Junior staff	21	70%m	21	72%	10	30%	12	71%

There was no difference between the centre and periphery in students' perceptions of doctor-patient relationships observed on their attachments.

It must be emphasized that the differences identifiable in the students' perceptions of clinical units do not 'confirm' or 'falsify' the beliefs embodied in the 'student culture'. Such beliefs retain their own force and validity. They do, however, suggest, that there are indeed differences in 'learning environments' in the different segments of the medical school.

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4. The figures given are those in each type of attachment who gave definitely 'positive' replies and the 'intermediate' type of response.

2.6 : Summary and Discussion

For the Edinburgh students the transition to the clinical years marks an introduction to the 'reality' of medical work in the hospitals. The immersion in medical reality presents the students with a number of practical problems. One of the most pressing of these concerns the management of their undergraduate careers, the selection of clinical units, and 'making out' on the units to which they are allocated. In arriving at solutions to these problems, the students employ shared beliefs and information about the medical school, the hospitals and their staff. These shared 'perspectives' are handed on from cohort to cohort. These aspects of 'student culture' embody theories about the organization of the medical school, the nature of the medical practice and the training to be encountered in the various segments of the school.

The students' views are predicated on a view of professional segmentation. Students evaluate their own 'clinical experience', and base their career management, on a recognition of differing, even competing, orientations and commitments on the part of their teachers. The cleavages of interest which the students identify in the medical school parallel major distinctions which have been identified within the medical profession at large.

The Royal Commission on Medical Education (1968) notes the presence of 'artificial distinctions between "medicine" and "surgery" (para. 232. p. 99). They advocate greater integration between the specialties, and inter-disciplinary group teaching, as a way to break down these 'artificial' barriers. Thus the authors of the Commission, in common with most spokesmen for occupational groups, stress the underlying 'community' of medicine: differences are glossed over as

'artificial', and the fundamental unity of approach is propounded. Although there have been moves towards more 'integrated' curricula in British medical schools (see e.g., Tentem, 1974; Crooks, 1974; Shaw, 1974), most curricula retain the 'artificial' distinctions which the Royal Commission deplores. Certainly, whatever their 'artificiality', differences between professional segments are very real to the students in the course of their clinical instruction at Edinburgh.

The normal organization of the curriculum - and certainly the organization followed at Edinburgh - corresponds what Bernstein (1971) calls a 'collection code' (as opposed to an 'integrated code'). That is, a principle of knowledge - organization which depends upon a strong boundary-maintenance between contents, and which is grounded in a social organization of strong departmental allegiances, and strong vertical integration within such departmental boundaries. (The 'integrated' code implies weak boundaries between areas of knowledge, weak departmental allegiances, and stronger horizontal integration between staff members across the weakly defined subject boundaries). The strong boundary-maintenance of such a curriculum code parallels the high degree of professional and pedagogical autonomy enjoyed by the individual hospital consultant, as well as the broader features of professional segmentation.

The medical profession, and its reflection in the medical school, confronts the undergraduate student as a segmented one. Student culture is constructed round a recognition of this phenomenon, and the art of 'studentmanship' depends upon an understanding of its nature. In discussing the notion of 'studentmanship', in the context of nursing education, Olesen and Whittaker (1969, p. 215) comment:

> ...studentmanship articulated and created a 'shadow structure' of the institution and its norms, power arrangements and sanctions, a shadow structure highly congruent at significant points with certain institutional factors.

This formulation by Olesen and Whittaker is particularly apt. It is not necessary to posit a total disjunction between 'student culture' and 'professional culture', nor a perfect homology. The question, on student culture, of 'To go underground or to join hands?' (Bloom, 1973, p.94), need not be posed in such extreme terms. The student culture need not be simply a 'little society' that precisely reflects and reinforces the 'great tradition' of the profession. Nor need it be seen simply as an almost secret society of primitive rebels - a private world in which the students are preoccupied solely with the immediate problems of academic survival. In the development of their shared perspectives, the students draw upon aspects of the profession at large, and use their perceptions to construct their typifications and interpretations. In so doing they construct their view of reality in accordance with their own concerns and interests. To that extent the construction of student culture resembles the <u>bricolage</u> of the myth-maker(Levi-Strauss, 1967). Olesen and Whittaker make a similar point as they develop their discussion of 'studentmanship':

> What is relevant is that 'studentmanship' is consonant with our assumptions in that it denotes the students' creation for themselves of norms, sanctions, understandings, manoeuvres, definitions and evaluative strategies, in part predicated on institutional realities, but to large measure emergent from the onward flow of 'psyching', 'fronting', leading to consensus around personal definitions....
>
> (Olesen and Whittaker, 1968, p.216).

As Olesen and Whittaker emphasize, the analysis of such 'studentmanship' provides a bridge between the 'objective' and the 'subjective' components of professional socialization, and these twin aspects of the process are parallelled by the analysis of students' careers, and of socializing agencies as institutions. Whilst the analysis of students' situational adjustment may illuminate aspects of their experience, it is necessary to take account of the nature of the organization within which these adjustments are negotiated. Students must not only 'learn the ropes', they must also learn who is pulling at the other end.

Part III : Pillow Talk : Social Interaction at the Bedside.

'Surging along,
Louts, duffers, exquisites, students and prigs -
Whiskers and foreheads, scarf pins and spectacles -
Hustle the Class !.....'.

W.H. Henley, A Book of Verses, 1888)

3.1 : Previous Observations of Clinical Teaching

The major part of my morning's work was devoted to the more or less passive observation of teaching in the wards and tutorial rooms. Here I was not involved in conversing with the actors and checking their on-the-spot reactions to situations: for the most part all I had to go on was the direct observation of the talk and actions of students, doctors and patients.

In observing the teaching of Medicine and Surgery, I was in relatively uncharted territory. This was so on two counts. Firstly, bedside teaching has received scant attention from writers on medical education. Secondly, the specific subjects of medicine and surgery appear to be investigated rather rarely.

To illustrate the latter point first: the attitudes revealed in the Todd Report suggest a laissez-faire attitude to medicine and surgery. Under the heading 'Particular Subjects' the authors note that:

> certain subjects which either because their traditional place in the medical curriculum is widely questioned or because they have not yet established a firm place in the curriculum, must be subject to a great deal of discussion when specific plans are being worked out.
>
> (para.236, p.101).

The specific subjects which the Royal Commissioners then discuss are: Anatomy and Physiology, Statistics; Behavioural Sciences; Sex Education; Psychiatry; Obstetrics; Gynaecology; Paediatrics; Community Medicine. The list, although by no means comprehensive is a large one. Internal medicine and surgery are conspicuous by their

absence, and the other main clinical specialities are included as either 'widely questioned' or 'not yet established'. By implication the position of medicine and surgery in the medical curriculum is seen as established and secure: specific scrutiny of these subjects is not suggested.

They are indeed the traditional foundations of the medical course - and, with midwifery, constitute the basic areas in which competence has been demanded of the practitioner (since the Medical Act of 1858).[1] Similarly in taking what is titled A New Look at Medical Education, Anderson and Roberts (1965) still place the subjects of medicine and surgery at the forefront of systematic clinical instruction, after an introductory phase:

> During the second year the clinical study of disease will begin by comparison and contrast with the situations that exist in health. The student will be shown how to develop his skill in eliciting the symptoms and signs of disease so that he can co-ordinate this information with what he had learnt of the body and mind reactions.
>
> In the last half of the second year the student will begin supervised medical and surgical teaching in the wards and learn how to co-ordinate his experiences here with his learning about disease in the classroom.
>
> (P.51, emphasis mine)

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1. Despite the preeminence of the subjects, their place as the twin spearheads of clinical studies in the first clinical year is not in fact unquestionable. It was remarked to me by a member of the surgical staff at Edinburgh that there are good arguments for treating it primarily as a postgraduate subject. There are also strong arguments for starting with community health approaches rather than hospital based teaching in the specialities. Similarly the relative position of the two subjects - at Edinburgh at any rate - has not been stable. Surgery now commands proportionately less time in the undergraduate curriculum than it once did.

In general terms, then, the subjects of medicine and surgery, have in comparison with a number of other medical specialities, not been widely researched. As I have already suggested bedside teaching itself has received scant attention from most writers on medical education. As in many areas of educational research, concern has been first and foremost on methods of selection, assessment, attainment and failure, motivation, attitudes and career aspirations. In contrast, the process of face-to-face teaching has been poorly covered.

Just as the Todd Report made few explicit remarks on the teaching of medicine and surgery there is little relevant comment on bedside teaching. The section on 'Patients and Teaching' (paras.287-293, pp.117-119) does not go far beyond deprecating large ward rounds and commending consideration for the patient's feelings; requirements for adequate supervision; seeking patients' cooperation and explaining fully the nature of the exercise.

e.g. Open ward rounds are still conducted by some clinical teachers with retinues of juniors and students, although this is now widely recognised to be a poor method of education, repugnant to many patients, and incompatible with the best medical care.

(from para 288)

No student should ever be expected to undertake any procedure involving a patient (including taking a history) or his relatives, without having seen the procedure carried out by a senior.

(from para 290)

Whenever a teaching procedure involves the demonstration of a patient's problems to a group of medical students or doctors, the patient should be consulted in advance, given a proper understanding of the situation, and asked to cooperate.

(from para 291)

There is no reference to research on the subject in the Royal Commission and in general the theme of clinical teaching in medicine and surgery is very much taken for granted. In Simpson's recent review of research on medical education (Simpson, 1972) the lack of references to work on clinical teaching (in comparison, say, with the considerable bulk of published research on selection and assessment procedures) is similarly revealing. Perhaps the most striking omission of all is that from Miller's book on teaching and learning in the medical school (Miller, 1961), which, although dated, is still widely quoted as a standard work on techniques and approaches for medical education. Bedside teaching is barely mentioned.

The topic of bedside teaching has also been poorly served by the explicitly sociological research on medical education. Both the Cornell study (Merton et al., 1957) and the Kansas study (Becker et al., 1961) effectively 'cop out' of discussing clinical teaching.[2] In The Student Physician, Merton and his colleagues focus on students' attitudes towards medicine and patients and the types of patients (defined in medical terms) that students saw, rather than the nature of the student-patient encounter. Likewise, 'Students and Patients' occupies only 28 pages of Boys in White, and Becker and his co-authors also concentrate on attitudes towards patients rather than student-patient interaction. Their comments on 'Student-Patient Interaction' actually occupy a bare two pages of their ethnography. The same lack of concern is to be seen

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2. As Bloom's description of the State University of New York Downstate Medical Center (1971) was based on questionnaire and interview material, observation of any teaching processes, including methods of clinical instruction, was not a part of his research strategy - and thus has no bearing on the concerns of this section.

in Bloom's study of the State University of New York. Downstate Medical Center (Bloom, 1971). The more recent studies of internships in the United States (Mumford, 1970; Miller, 1970) also tend to gloss over the nature of the relations between interns and their patients. Perhaps the most disappointing of all these failures is that of the Chicago-school research.[3] For instance, although Becker et al., note that: 'The student spends much of his time in the clinical years interacting with patients' (p.131), the section of their ethnography dealing with student-patient interaction is simply a brief idealised description of the sequence of types of encounters in which students and patients meet.

> e.g. The third-year student typically meets his patients when they are hospitalised for diagnosis and treatment. He comes into contact with them repeatedly during their hospital stay. He performs a complete examination upon the patient's arrival in the hospital. He presents the patient to the staff and other students during the rounds, describing the case in detail, demonstrating outstanding clinical findings, and suggesting a diagnosis and plan of treatment. He checks daily on the patient's progress, quizzing and re-examining the patient frequently. He enters into a casual but continuing relationship with the patient. The major problem patients present for the student on the hospital wards then, is to maintain this continuing relationship in such a fashion as to be able to get the necessary information for the job he is assigned.
>
> (p.315)

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3. Although Olesen and Whittaker's (1968) study of nursing education was conducted by participant observation methods, it contains little that is directly concerned with nurse-patient work. Their account is basically limited to the patient's role in legitimating the students' performances (a theme that I refer to below). They also refer to students' typifications of their patients, as do Becker et al., (1961).

We should note that in identifying this last 'major' problem for the medical student, Becker and his colleagues have taken as given a wide range of skills on the part of the medical student, and a large number of potentially problematic situations which the medical student is to bring off successfully. To mention just one, the elicitation of the history is a social and medical accomplishment of extreme complexity, implying a high degree of competence. Yet the authors of the Kansas study take it for granted in the socialisation of the medical student.

The situation which approximates most closely to the 'bedside teaching' described in this thesis was not described even as fully as the foregoing summary. It occurs during the sophomore year, which was taken by the fieldworkers to be concerned with student preoccupations which they believed were fully documented in their descriptions of the previous or the following year. Unfortunately, then, the following is the only account of the initial phases of student-patient contact at Kansas:

> The student meets his first patient face-to-face in his second-year course in physical diagnosis. A group of four or five students meet in the clinic once a week with a staff member, and one of them takes the history from and performs a physical examination on a clinic patient ... These examinations are ordinarily performed in the presence of the staff member and other members of a group, so that the student is insulated from many of the potential difficulties of interaction with patients ... (p.314).

Thus the many potential difficulties are not explicated, nor are the ways in which the intervention of a clinical tutor obviate such problems for the student. The authors continue:

> Several times during the year thestudent must work-up a patient on the hospital wards for presentation to the entire class. In this case, he operates without benefit of the staff member's presence, but his only problem is to perform the examination adequately enough to get the information required for his diagnosis.
>
> (p.314, emphasis added)

Once again, the student's 'only problem' in fact masks a wide range of 'problems' (whether or not they are always explicitly attended to by the students) concerned with sustaining a conversation or series of conversations with a patient, examining him competently, reformulating the information elicited into a 'competent' history that will pass muster with his teachers and peers, and generating an acceptable diagnosis on the basis of his findings.

Having thus dismissed all these aspects of student work in the clinical years, Becker et al., pass on rapidly to a discussion of students' attitudes towards patients. They distinguish between attitudes drawn from 'medical culture' - e.g., distinguishing between the curable and the incurable; these drawn from lay culture - e.g., disgust for immoral or immodest patients; those drawn from 'student culture' - e.g., 'interesting patients' who provide valuable new clinical experience.

Although some limited information can be culled from the field material presented in documenting such student attitudes, there is no systematic discussion of student-patient-doctor interaction in the medical school. The outcome of this neglect in the Kansas study (and in other, similar studies of professional socialisation, e.g., Olesen and Whittaker, 1968) has been that the status and the acquisition of professional knowledge have remained marginal. The emphasis has been

on such features as 'psyching out' and situational learning, the negotiation of levels and direction of effort, 'student culture', etc. In other words, there has been a concentration on 'the hidden curriculum', to use Snyder's convenient label (Snyder, 1971); the manifest curriculum has been largely ignored. Young sums up such a critique of previous studies in this way:-

> This perspective (that of the Symbolic Interactionists) derived largely from the ideas of G.H. Mead, has given rise to valuable studies of lawyers, medical students, nurses and others. These studies have raised questions that are not considered by functionalists about the process of interaction and the situational significance of beliefs and values. However, they have not been able to consider as problematic the knowledge that is made available in such interactions.
>
> (Young, 1971).

If the main sociological sources have ignored the topic, it has to some extent been approached by those who are more closely aligned with the tradition of social psychology and so-called 'interaction analysis'. There have been a number of attempts to apply pre-coded schedules to the observation of bedside teaching. I am aware of three methods that have been tried - all stemming from the United States. There are two category systems and one summary rating scale.

The rating scale system that I refer to is the Medical Instruction Observation Record - developed by Hilliard Jason at the University of Buffalo and subsequently used in a number of settings (e.g. Jason, 1962, 1964). Thesystem consists of eight separate scales, each with twenty points. The scales are labelled: 'Attitude to difference'; 'Sensitivity to physical setting'; 'Attitude to

students'; 'Use of instructional materials'; 'Attitude to patients'; 'Reaction to students' needs'; ' Use of teaching methods'; 'Use of challenge'.

Jason (1964) claims that in the use of his scales, 'the observations were purely descriptive and were not concerned with the quality of the teaching'. Yet it is hard to see how such ratings can be seen as anything but frankly evaluative. Consider, for instance, the exemplars that are offered in the user's manual to illustrate the extreme poles of one scale - 'Attitude to patients'. On the one hand we find: 'Frank disregard for the patient is evident. The patient is not greeted, is given brusque instructions, and manipulations are undertaken without explanation'. On the other hand there is: 'Kindness and consideration characterise the contact. Permission is requested for all that is done; reassuring explanations are offered and protection of modesty is assured'. It is difficult to maintain that the evaluative stance is even an implicit one here.

It is apparent from the wording of the scale titles that Jason's system is concerned only with the evaluation of the medical teacher; students and patients enter into the picture only as incidentals to the clinician's performance. In common with other rating summaries, MIOR is extremely wasteful, insofar as it preserves none of the original interactions. The MIOR does preserve an underlying concern apparent in much of the American tradition of classroom interaction research, stemming from the work of Lewin, Lippitt and White (1939). This line of research is concerned with the theme of democracy and authoritarianism (or, as Jason labels it, traditionalism). Explicitly, underlying his scales, he sees a single bipolar dimension:

.... for the seven scales, they tended toward the extremes of: rejecting student differences, disregarding the physical setting, showing an antagonistic attitude to students, using instructional materials ineffectively, disregarding student needs, employing teaching methods ineffectively, and making no use of challenge. Henceforth, for summary purposes, teaching that tended in these directions is referred to as 'traditional'.

(Jason, 1962).

By the same token, instructors who tended towards the opposite extremes were described as 'democratic'. The use of such value-laden descriptions severly undermines Jason's claim to a non-evaluative position. Indeed, one is tempted to suggest that he comes out into the open and describes the first type as downright un-American teaching activities.

At first sight more promising than the MIOR are the two interaction schedules of the category type. The first that I shall consider is that used by Payson and Barchas (1965) in what they describe as 'a time study of medical teaching rounds'. The analysis proceeds by monitoring the allocation of time to a number of different activities, classified according to whether they take place with the patient present or absent. Thecategories for coding are as follows:

Talk with patient	(a) physical factors	Patient present
	(b) other factors	
Examination (of the patient)		
Talk about patient	(a) physical factors	
	(b) other factors	
Theory		
Talk about patient	(a) physical factors	Patient absent
	(b) other factors	
Theory		
Walking and waiting		
Miscellaneous		

When one remembers that 'patient present'/'patient absent' represent two different social contexts in which the instrument is used, it will be seen that the schedule is based on five categories of talk and one of action, plus two residual categories. It is a very blunt instrument indeed. Additionally, the mixture of action and talk involves an inherent ambiguity in the recording. All the time devoted to the examination of the patient is allocated to that category; any talk - either with the patient or the students on the part of the doctor - is not recorded as such.

The system used by Payson and Barchas shares a basic problem with the MIOR in that it is used to record only the talk and activity of the teaching clinician:

> The same procedure was used in each hospital. The allocation of discussion and examination time of the senior physician present was measured with a stopwatch and recorded according to a precoded scheme... All use of time was considered to be under the direction of the senior physician and was so recorded.
>
> (Payson and Barchas, 1965).

Thus, quite apart from the failure to distinguish the talk and acts of patients and students, the use of the scheme makes a very extreme assumption about the nature of social order in the teaching situation - that it is solely under the control and management of just one of the interacting parties.

More sophisticated is the third coding scheme to be considered. This bears closer resemblance to the most frequently used methods of classroom observation. Anderson (1966) developed Flanders' (1955) category system (FIAC) for use in clinical settings. The scheme

consists of ten major categories, of which several are subdivided - producing twenty-one categories in all. Additionally, there are three residual categories - 'Silence', 'Confusion' and 'Patient Talk'. Anderson's categories were in full:

Instructor initiation

a. Presents information.

2. Gives directions.

3. Uses challenge.

A. Requests simple recall or recitation.

B. Requires analysis, synthesis, judgement.

Instructor response

4. Answers questions.

5. Supportive reaction.

A. Accepts, clarifies, or elaborates student's idea.

B. Praises, supports or encourages.

C. Accepts emotion, reaction or feeling.

6. Nonsupportive reaction.

A. Corrects factual inaccuracy or misconception.

B. Criticises or justifies own authority.

C. Rejects emotion, reaction or feeling.

Student response

7. Student responds to instructor.

A. Answers question (compliance).

B. Supportive reaction.

C. Nonsupportive reaction.

8. Student responds to fellow student.

A. Answers question.

B. Supportive reaction.

C. Nonsupportive reaction.

Student initiation

9. Questions.

A. Instructor.

B. Fellow student.

C. Patient.

10. Present information.

Other

S. Silence Z. Confusion P. Patient Talk

As with FIAC, the underlying logic of the system is the four-way classification of talk into "Instructor initiation', "Instructor response', 'Student initiation' and 'Student response'. Strikingly, patient talk does not figure in the subsequent analysis. In fact, Anderson's study appears to be addressed primarily to what my Edinburgh students would have recognised as 'tutorials' in the teaching room. Although he states that ward-rounds were included in the analysis, it seems that these were primarily classroom-based sessions, with just occasional forays into the ward to the patient's bedside.

Yet even Anderson's approach leaves much to be desired, and my criticisms apply a fortiori to the other two systems I have referred to. As I have already pointed out, students' and patients' contributions to the teaching session are not dealt with in the MIOR, nor by Payson and Barchas. The Anderson system does include categories for both, but the patient's talk is treated as a residual category, and does not play a significant part in Anderson's description of teaching practices. In other words, Anderson treats the process of clinical teaching as essentially similar to that of school-based classroom teaching. (Indeed, his description of hiw own work explicitly describes it as classroom-based although it purports to include ward-based bedside teaching.[4] Thus the design and use of Anderson's system leave matters very close to the classic Flanders model of two-party games of 'linguistic ping-pong'

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4. Since, like most research of this sort, Anderson's reports are remarkably insensitive to the social context of the interaction he categorised, it is difficult to be precise about the exact nature of the medical teaching observed. All one can say is that although 'bedside teaching' was supposed to have been included in the analysis, there is no way of being sure of the extent to which Anderson makes it look more like a 'tutorial', or whether this reflects a real feature of these teaching periods. The point remains, however, that his analysis would certainly not do justice to the sort of interactions that I observed.

(Hamilton and Delamont, 1974). In doing so, I argue, Anderson (and the other authors cited) have managed to distort the most distinctive feature of clinical teaching at the patient's bedside - that it is a triadic situation. The doctor, students and patient are all engaged in the creation and maintenance of the social situation. Further, they are all engaged in the exchange and control of medical information and knowledge. The patient can in no sense be treated only as a lay figure, a passive 'resource' or 'topic' for teaching (though he may be treated like that for some purposes in the teaching): he or she is also called upon to act as a participant - as a social actor. Any approach which failed to accommodate the part played by all parties to the interaction cannot cope adequately with the distinctive and recurrent features of bedside teaching in the medical school.

My solution does not lie in the development of yet another pre-coded observation system, however. Despite the preeminence of a few systems such as the FIAC, educational research has been inundated with a vast number of observation systems. But, apart from the establishment of a few norms - such as Flanders' 'two-thirds rule' - the development of adequate generalisations about teaching has eluded the interaction-analysts. Interaction analysis may prove useful for a limited range of practical problems (cf. Hamilton and Delamont, 1974, for a discussion of pros and cons). It does not attempt to solve fundamental problems of social order. Rather, this style of research is primarily concerned with the enumeration of surface features of the interactions. Or, to put it more eruditely, the level of analysis is 'etic' rather than 'emic' - with the proviso that the 'etic' descriptions are generally very crudely drawn. Essentially, the interaction analysts are involved in the production of classifications and building typologies (e.g., of

'teaching styles'). Yet the criteria which inform the selection of the descriptive categories remain largely implicit (cf. Hamilton and Delamont, 1974). The construction and use of such schemes is dependent upon knowledge and assumptions about the social realities of classroom life which remain unexamined. Interaction analysis is afflicted with 'quantiphrenia' - with the belief that classification and enumeration can replace the process of <u>generalisation</u> in generating theory. All too often, the failures of interaction analysis are couched in terms of pious hopes for the future: 'We are not yet in a position to....'; 'We hope that future research will clarify....'. The assumption appears to be that if you count enough things for long enough, then theory will somehow emerge.

Although the approach of interaction analysis relies on the quantification of phenomena, there appears to be no valid basis for the assumption that the repetition or duration of events provides the only ground of social order, or provides the only rationale of members' understandings of social interaction. Of course, the sense of repetition of typified acts may be a part of one member's typification of another: 'Oh, he's always ....'; 'He's forever saying....' and so on. But such assemblages of 'similar' events are the products of members' interpretations of concrete situations. They are not once-for-all classifications which can be abstracted from the members' formulations. Additional,. members may recognise as the most important element in an interaction an act which is seen as atypical, unique, unforeseen, unrepeatable or whatever. What the students see as the most salient feature of a teaching period may well be fleeting - lasting perhaps a few seconds - yet prove a crucial event in the students' shared definitions and understandings. (For such an event and its subsequent

significance, compare Walker and Adelman, 1976). Let me also cite an example from my own research. The incident concerns Dr. Maxwell. In the middle of teaching one day he suddenly groaned and 'collapsed'. Dumbfounded, the students stood about, wondering what to do - and in fact doing nothing. After a moment or two, the consultant leaped back to his feet and berated the students for standing round and taking no action. They were supposed to be training to be doctors - but what good would they have been if he had genuinely collapsed? This incident clearly had a considerable effect on the students, and was entered into their word-hoard of myths and folk-tales about their teachers. He was seen as a 'character', who was often described to me as illustrating his teaching with such 'dramatic' antics. For myself and the students alike, the incident recounted above appeared to be a prime example of an extremely characteristic facet of this clinician's teaching. Yet is lasted a few moments only, and would probably have occupied a dozen or so of a Flanders/Anderson three-second sampling technique. (Presumably, in FIAC it would be represented by several category 10s - 'silence or confusion' followed by several 7s - 'criticizing or justifying authority'; similarly, Anderson would represent it as Z followed by 6B.) Even stated in baldest outline, the doctor's action and the students' reaction suggest a number of comments on clinical teaching and professional values: for instance, the emphasis that can be put on 'action' and 'responsibility' in medical work, and students' perception of their clinical teachers as 'characters'. I am not convinced that such lines of interpretation are in any way retrievable from tallies which can be read as 'Silence or confusion followed by criticism', however accurately their duration may have been recorded.

The approach followed in the following sections is, therefore, again based upon an 'ethnographic' stance. Such an approach to the face-to-face interaction of teaching now offers a style of research and interpretation that is gaining ground in the study of teaching and learning in schools (see Stubbs and Delamont, 1976, passim). Such an approach treats as problematic how 'classroom' interaction is accomplished, rather than assuming that the underlying processes are understood, as is the case with 'interaction analysis'.

3.2 : The Accomplishment of Bedside Encounters

Defining Medical Reality

Clinical teaching on the hospital wards, insofar as it derives from an 'apprenticeship' mode of professional socialization, has features of 'on the job' training. Although medical students are not working employees in the organisation, they are taught in the work milieu - in the 'real world' of medicine. To some extent, as they process round the wards with a teacher, or work individually whilst 'clerking' patients, the students are involved in the day-to-day world of medical work. Yet at the same time they are not unequivocally members of the ward personnel and participants in their routine work. It is not so much that they are incompetent recruits, but rather that the students do not have responsibility for any aspect of the patient's daily care. Their position in the hospital is therefore ambiguous. The teaching encounter at a patient's bedside is to some degree defined as a medical one; in some ways the work of the teacher and his students is kept distinct from the rest of the ward and its routine. The following sections will explore these two facets of the clinical teaching encounter.

The medical milieu and ambiance must be accomplished and sustained as a prerequisite to the specifically educational tasks at the bedside. The production of a 'medical' encounter will therefore be considered first.

As Emerson (1970) has pointed out, 'situations differ in how much effort it takes to sustain the current definition of the situation; and she cites the gynaecological examination as one which is extremely prevarious. I believe that Emerson attributes

specifically to gynaecological examinations many features that are common to most, if not all, medical encounters. Certain aspects of medical work require a degree of careful reality management on the part of medical personnel - and this applies whether the situation is a 'delicate' internal examination or a 'straightforward' follow-up out-patient visit, or indeed a session with medical students. Emerson comments on a number of reality-sustaining (or creating) devices in her discussion of gynaecologists and their patients. She points to the fact that the 'medical definition' is expressed by a number of indicators - e.g., that the interaction is located in a medical milieu, the hospital clinic or doctor's office. Within that space decor and equipment complete the medical mise en scene: 'The staff wear medical uniforms, don medical gloves, use medical instruments'. Similarly, the presence of medical personnel and the exclusion of lay members 'helps to preclude confusion between the contact of medicine and the contact of intimacy'.

Emerson also discusses the use of linguistic conventions in sustaining a medical definition of the situation - for instance, the substitution of the definite article for pronominal adjectives ('the vagina', not 'your vagina'), or 'delicate' periphasis ('down below' to refer to the pelvic region, etc.). Along with a degree of impersonality, Emerson also points out, the examining doctor must attempt to combine a demeanour suggesting care and concern. She goes on to describe a number of ways in which such a smooth accomplishment of the examination may be threatened, and further, how such threats may be neutralised by the physician and his nurse, or other attending auxiliary personnel. I have dwelt at some length on Emerson's

description of the gynaecological examination and its routine accomplishment in order to make the following point: mutatis mutandis Emerson's description applies equally to most, if not all, medical encounters - and certainly those that take place in a medical locale. In all such encounters the medical ambiance hedges round the actors' construction of reality; in all cases the medical personnel are there, often with para-medical professionals and other auxiliary workers at hand; in all cases the talk and demeanour of the professionals sustains the medical reality. What I am arguing is that Emerson's paper in fact presents a generalised picture of medical reality in a professionalised locale, and I take it as a general introduction to the construction of reality in such settings.

This was brought home to me in the context of what was in fact a 'delicate', personal examination rather like Emerson's gynaecological encounter. It occurred in the course of a surgery ward round. We were at the bedside of a man in his thirties who had a swollen and painful testicle. After presenting the case briefly, the consultant asked one of the female students to examine the patient's swollen scrotum. I observed very few bedside teaching sessions in which such examinations of patients' genitals had been involved: I was therefore particularly on the alert for the sort of things that Emerson describes (methods of guarding against embarrassment, repair work when embarrassment occurs and so on). The examination I was observing was a 'delicate' one in two senses, as it involved a young woman examining a man's genitals, and it was - potentially - extremely painful for the patient and called for careful examination by the student. Immediately after the teaching session I noted:

> I wondered if she would show any embarrassment at examining the patient's genitals. She blushed a little, but I could detect no other signs of embarrassment on her part.

By the same token I was not able to observe any signs of particular embarrassment, or of affected nonchalance and matter-of-factness on the part of the patient either. My notes continue:

> Observation, concerning Joan Emerson. She discusses the 'clinical' approach as minimising embarrassment. But such an approach happens anyway - i.e., in all cases, not only in those which involved sexual encounters which might be open to misinterpretation. In other words, students will generally adopt a 'serious' and 'considerate' approach to the patient. It would be difficult to imagine what behavioural differences one could expect from situations of heightened 'threat'/'embarrassment', etc.

At this point in my observations, then, I was drawing attention to the fact that Emerson's comments are not confined to gynaecology in their relevance to medical encounters. Rather, they should be seen as describing a special case, throwing into relief features which are general to all doctor-patient interactions. In Emerson's terms, the gynaecologist's talk and demeanour can be seen as informing the patient, 'Look, this is a perfectly ordinary clinical encounter - a perfectly normal and routine examination'. But the very fact that it comes over as normal and routine depends upon the fact that this is the nature of all (or most) run-of-the-mill clinical encounters.

The construction of bedside teaching is a variant of 'medical reality management', and we can see how many of the devices that Emerson identifies are mobilised or are available. The medical

ambiance does not need construction as a background feature. It is already constituted in the hospital, and patients will already have been socialised into the medical situation by the time they are visited by the clinician and his students. They will at least have been admitted and examined by the resident physician and will have been worked on by the nursing staff. In the same way, there is no need for the explicit recruitment of medical or auxiliary staff to create a medical definition: they are routinely on hand - the housemen performing their day-to-day duties, the nurses and auxiliary staff theirs.

As part of this process, the medical student's uniform is an important dramaturgical 'prop'. Putting on their white coat is an important symbolic manifestation of students' status passage from preclinical to clinical studies (cf. Becker et al., 1961, p.194). Not only does it symbolise this new status to fellow students, it also declares the wearer of the white coat as a 'medical' person to others in the hospital. For instance, it marks one off from such transients as visitors and out-patients, as one strides through the corridors from ward to ward. The white coat may ensure the wearer privileged access in the hospital; it is a passport as one moves about the building.

As a white coated person myself, I was aware of the relative immunity it offered. It provided excellent camouflage as I wandered about, looking for students or their teachers. Indeed, on one occasion, I was rather disconcerted to find that my camouflage had worked too well. Whilst standing with a group of students, waiting for a doctor to teach, I was alarmed to find a member of the public tugging at my

sleeve, telling me that a woman had just collapsed nearby, and asking for my help. Luckily I was able to get enthusiastic support from my knot of students; some went for help, whilst others rushed off eagerly to see and join in some real emergency medicine. For the students, too, the white coat confers medical status, and proclaims them as legitimate personnel to the patients and hospital staff. Along with the coat, the student's clinical instruments complete the picture of the young doctor.

The stethoscope, whilst having obvious pragmatic value, is also of great dramaturgical value in proclaiming the clinical student's new-found place in the medical hierarchy. During the earliest days in the field, I noticed how stethoscopes were a topic of conversation. Several students pointed out to me how they and their colleagues displayed their stethoscopes as badges of office. Stethoscopes are carried in the roomy pockets of the white coat. But, my informants told me, the more junior clinical students make sure that their instruments are very clearly visible, left dangling artfully over the edge of the pocket, whereas more senior students would stuff their stethoscopes further into their pockets, even out of sight. This, it was suggested to me, may imply that whereas the 'green' fourth-year students are eager for clinical work and involvement, their more world-weary seniors are as concerned to avoid them. Be that as it may, the stethoscope, plus the tendon hammer, are obvious emblems of the students' medical status. By the same token, their possession may reassure the novitiate and bolster his confidence in the strange new milieu of the hospital.

e.g. When we got to the hospital we went to the lockers.
The students were laughing and joking, rather self-

> consciously, I thought, about carrying stethoscopes.
> One said it was because he was hoping to use it soon,
> and added that it also boosted his confidence to be
> seen carrying it.

To go with their medical 'uniforms' and trappings further aspects of the students' self-presentation are related to his or her appearance as a 'medical' person. To some extent, on entering the clinical years, students are expected to 'smarten themselves up'. During the pre-clinical years, the students of the medical school dress much like any other students. When they go on the wards, some 'standards' may be imposed.

I have already mentioned that this form of social control was a feature of student mythology and horror-stories about life on Dr. Burton's unit. Elsewhere, such control was usually less strict. One senior registrar mentioned to me that he sometimes 'looked twice' at students, and thought that if he were a patient, he would not fancy being treated by people who looked like that: but he had never actually excluded students from the wards on these grounds. There are 'standards' that are normally required throughout all clinical units, however. These were outlined for some students I was with at an introductory meeting on the first morning in the hospital:

> Dr. Lukes went on to say that some of the students would
> have already visited the wards on a Saturday morning.
> He added that for their work on the wards the men were
> required to wear ties, although suits were not
> obligatory. Although, he explained, the doctors did
> not insist that men have their hair short, he suggested
> that men with long hair should tuck it into the collar
> of their white coat.

Similarly, in an introductory lecture one physician told the students that although 'faculty don't care', the patients 'tend to get upset if people are dressed in a peculiar way or have their hair down to here. They are to be comforted, not confronted'. It is noticeable that women's appearance was not specified. The only time when a female student's personal appearance was commented on occurred while the students were practising percussing the chest, in the first term on the wards. The girl in question had long, carefully manicured nails, which were preventing her percussing properly with the finger tips. The consultant suggested that she should trim the nails, and I noted that she had done so by the following morning. Some of the female students appeared in trousers, but this was never adversely commented on.

There was in fact a wide range of personal styles and modes of dress current among the students, but observation across the years did suggest that as they progress through the medical school,mthey do tend to adopt more 'sober' and 'conventional', even 'smarter' clothes and hair styles. This was something which students themselves would sometimes point out to me, as they directed my attention to their more senior colleagues in and around the hospitals and the medical quadrangle. Although there was no miraculous overnight transformation, I did notice how students began to adopt the style of their senior colleagues. Particularly during the early days in the field I noticed that the male students would comment on and chaff each other about their clothes and hairstyles. Thus, on the first morning of my first year's work, I noted the following interaction in the lecture theatre:

> One student entered in what was clearly a new jacket and tie; his hair was fairly long, but well trimmed. He went up to sit beside a friend who had shoulder

> length hair. Seizing it, he said, 'This lot will all have to come off'. He then turned and pirouetted to show off his own new clothes.

In terms of the students' 'personal front' (Goffman, 1956) this is part of their transformation from laymen to medical men. In parallel with the 'doctrinal conversions' (Davis, 1968) that student professionals go through, they must come to take on the manners (in the broadest sense) of the members of the occupational group. Transformations in self-perception are accompanied by transformations in the self that the student presents to others about him - his fellow students, his teachers, and the patients on the wards. At the same time, we can see how this development relates directly to the bedside teaching, insofar as the students' impression-management contributes to the successful definition of the situation as a legitimate, medical one.

It is not only the students' appearance which is involved here. More generally, their demeanour, and that of the doctors involved, is an important constituent feature of the clinical teaching encounter. 'The bedside manner' is a general, common-or-garden way of expressing the range of behaviours that are typically expected as distinctive of medical practitioners. While such things are notoriously hard to pin down and document, their general effect is apparent as a backgroumd feature of bedside interactions.

Teachers coach students in several aspects of behaviour which are part of the normal demeanour of clinical medicine. An example of this is the injunction that the bed should be approached from the patient's right-hand side. The reason for this piece of etiquette is never articulated, but it is often stated as a basic principle of

bedside work. Although the requirement may be grounded in practical considerations, it is presented to the students more in the guise of a ceremonial act, rather than one based on convenience or comfort. Sitting on the patient's bed is also a breach of etiquette. It is permissible to perch on it to examine the patient's back; any 'sloppy' sitting on the bed lays a student open to reproof from a clinician.

In much the same vein is the injunction that students should get on the same level as the patient, although here the comfort of the patient is more clearly at issue; students should avoid towering over the patient. Similarly, students are told to make sure that their hands are not too cold when they palpate a patient's body. (This can cause further problems, however. On one occasion a student, asked to examine a patient's abdomen, began to rub his hands together, to warm them up. The consultant told him, rather sharply, not to do that - 'It looks as if you're just about to sit down to a good dinner!'). Students are also reminded to re-make the bed if they have to pull the bedclothes off. This demonstrates consideration for both the patient and the nursing staff.

The observance of such etiquette is one way in which students are coached to respect and reproduce the appearances of medical work. More generally, however, the medical definition of reality requires that some rules of everyday interaction are set aside, and more context-specific rules employed. The example of the gynaecological examination, referred to above, is a special case of the demands of such reality-maintenance. Clinical work requires that patients' bodies be peered at, probed and felt. Such 'privileged access' is normally confined to intimates, and as Lief and Fox (1963) comment:

The amounts and occasions of body contact are carefully regulated in all societies, and very much so in ours. Thus, the kind of access to the body of the patient that a physician in our society has is a uniquely privileged one. Even in the course of so-called physical examination, the physician is permitted to handle the patient's body in ways otherwise permitted to special intimates, and in the case of procedures such as rectal and vaginal examinations in ways not even permitted to a sexual partner.

Junior students do not normally perform vaginal examinations, though rectals are sometimes done. However, they are routinely expected to perform other sorts of physical examination. Such encounters have to be handled with some care: the participants need to make it clear to one another that this is a 'medical' situation, and not an 'intimate' one. This problem is not entirely confined to the medical arena, but can occur whenever contexts require intimate physical contact (e.g., bodily search by security guards). In all cases the smooth performance of such encounters requires that the actors should treat these events in a matter-of-fact way. In such interactions - including those involving the medical students - decorum calls for a posture of personal detachment coupled with a display of concern.

For the students, the successful accomplishment of bedside encounters requires that they learn two basic things. First they must manage to treat the occasion as a 'normal', 'medical' one; secondly, they must maintain their composure in a semi-public display of their embryonic medical skills. For in their 'on-the-job' acquisition of competence in bedside work, the students usually have an audience. Inescapably, the patient, if conscious, is in a position

to observe their efforts. Frequently, they have to perform with a clinician and their fellow students as an audience as well.

Students frequently encounter difficulties in composure when they first encounter patients on the wards. One student put it quite forcibly:

> It's a terrible experience sort of interviewing patients for the first time....

Other students put it rather less dramatically:

> I've never had any trouble with patients personally... I think I can get on fairly well with most patients. I don't think anybody's ever complained about me.... I was very apprehensive. It's a bit worrying as a student to ask people questions about their personal life and private life, and go into personal problems. Youfre not qualified and they know you're not qualified - very embarrassing to start with.

> You have to learn to conquer your initial shyness - that's the thing I found most difficult - because you feel that the patient expects so much of you. You know, because, in their eyes, you're a doctor. And I felt that the first few sessions I was there I felt it acutely - that they were embarrassed for me because I was obviously incompetent. And that was very difficult at first - and that was one of the first things we learnt: put on a calm front even though you haven't a <u>clue</u> what you're doing. The other thing is to express yourself....

The same girl went on to say,

> I don't find it difficult on my own at all; that passed off pretty quickly. But I still find it difficult to interview a patient in front of the class. And this is very difficult, especially if you happen to be landed with a difficult patient....

> I really came across my first difficult patient in front of the class.... I asked what was the matter with her and she, you know, she came back with the classic reply, 'You should know doctor'. And I was completely unprepared for it.

As usual, Richard Gordon is amusingly perceptive on the beginner's mixture of enthusiasm, incompetence and embarrassment. On his first day on the ward the hero confronts his first patient, having looked briefly at his sheet of clinical instructions. '...but I was burning to try my luck on a real patient. I stuffed the paper in my pocket, like a child tossing aside the instructions for working a new complicated toy'. Having found a probationer nurse to chaperone him he plunges into the examination of his very first patient.

> We went back to the ward together and gathered some screens round the stout blonde's bed. The probationer stood opposite me with a look of contempt on her face for my inexpert manipulations while I examined the blonde's tongue, her eyes and her teeth. I stuck my stethoscope warily here and there on her chest, though the noises were as uninformative to my ears as the sound of sea on a distant shore.
> Taking the earpieces out I said 'Good!' as if I had completed my diagnosis.
> 'Aren't you going to examine my tummy?' asked the blonde with disappointment. 'All the doctors examine my tummy. It's my tummy what's wrong'.
> 'Tomorrow', I said firmly. 'I have to go and operate'. How could I tell her in front of the nurse I had not yet learned as far as the tummy?
>
> (Gordon, 1952, p.59).

While students can manage to oversome their apprehensions over interviewing and examining patients, they find their performances before doctors and their fellow students more nerve-racking. As one

student said:

> At the ward-meetings at the end of the week, they accepted you as part of the staff. And if you had a patient that was of interest, you had to present it to the ward - which was a frightening experience....

And another of the students said,

> I don't mind at all having one patient - one person - but I don't like having surgeons breathing down your neck going 'Tut'.

The presence of clinicians therefore presents the novice student with a critical audience to their incompetent first trials at clinical work.

Whilst patients can also be a source of embarrassment to the students, they may appear to be more indulgent, and students' avowal of their novitiate status can be employed as a resource. During the early days of students' time on the wards, they sometimes get lost in their question-and-answer sequences, and are forced to consult the small handbook provided by the medical school:

> Dr. Saunders said that I could go off with the students if I liked, and I trotted into the ward, where I found Dennis Elliott interviewing a middle-aged man. Dennis was referring to his little booklet on 'how to take a history' - and he referred to it several times: as he did so he apologised to the patient for having to use it.

On such occasions students would offer rather nervous apologies for having to use this crib, whilst patients would acknowledge that they didn't mind 'helping' the students. On other occasions, rather more 'covering up' can be employed by the students as they strive to find their bearings:

> You thought of all the questions to ask and then forgot what to ask them next. I would talk about the weather - filling in the questions as I started to remember them again.

The prospect of a nurse as an audience can also produce fears of being 'shown up' as incompetent in students as they begin their clinical work:

> We all met again by the noticeboard. Jeremy Davies and David Dean were discussing their respective patients. Jeremy had been examining his female patient, and David asked him if he had had a nurse present. Jeremy replied that he wasn't going to show off his incompetence in front of any nurse - he wanted to preserve his 'aura of competence'. He asked if a nurse was necessary as a chaperone. David thought it wasn't obligatory, but that regulations varied from place to place.

Students inept performances are not always the subject for distress. On the contrary, the potential problems of their incompetence can be de-fused by laughter, and dissolve into general hilarity. For instance, one student described how humour can arise:

> St. It'll all come with practice anyway; in the summer when we start clerkships, probably within a week we'll be so good - so used to doing it - that it'll only take a couple of hours. Whereas I can only do the central nervous system in a couple of hours now. Ever seen anybody doing that?
>
> P.A. (untruthfully) No.
>
> St. You have to try and work out the field of vision, so you hold their head and get them to look straight into your eye and cover one eye - they have to cover one eye - and then

> you say 'Tell me when you see my finger', and you turn like that with your finger till they see it moving, and down there till they see it moving... (he demonstrated the tangle that a student can get into)... It's not unknown for the patient to burst out laughing... taking the piss out of the poor student. I think that happened to Lorraine Beckett you know her - of course she giggles so much anyway. I think when they both got started, the examination ended. Poor Lorraine.

The presence of patients as parties to the bedside teaching clearly constitutes something of a problem for the students in the early days of their clinical work. This is highlighted if one by a consideration of the management and control of information vis-a vis patients in the course of bedside teaching.

The Management of Awareness and Control of Information

One of the basic constraints that hedges round many hospital encounters is that involving 'awareness' and information-control.[1] This has been discussed primarily with regard to dying patients and their awareness - or otherwise - of their prognosis. Such a concern is at once a practical one for the doctor and also one that has generated more theoretical concerns for sociological writing. In the first instance, the internal debate that a clinician may have to go through when faced with what he takes to be the knowledge of his patient's impending death - 'to tell or not to tell' is a problem that confronts the majority of clinicians at some time or other. Secondly, the grounds on which such decisions are made, and the subsequent doctor-patient interactions provide an area for the investigation of the management of professional encounters.

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1. For a full review of the literature on this topic, see McIntosh (1974).

The most systematic study of the doctor's dilemma and its subsequent working out is that of Glaser and Strauss (1965). They were particularly interested in the ways in which social interaction involving the patient, his relations, nursing and medical staff, is oriented towards the management of awareness. As their main analytic framework Glaser and Strauss employ the notion of an 'awareness context'. They single out four ideal-typical awareness contexts - 'open', 'closed', 'suspicion' and 'pretense'.

> An <u>open</u> awareness context obtains when each interactant is aware of the other's true identity and his own identity in the eyes of the other. A <u>closed</u> awareness context obtains when one interactant does not know either the other's identity or the other's view of his identity. A <u>suspicion</u> awareness context is a modification of the closed one: the interactant suspects the true identity of the other or the other's view of his own identity, or both. A <u>pretense</u> awareness is a modification of the open one: both interactants are fully aware but pretend not to be.
>
> (Glaser and Strauss, 1964).

In the course of their hospital ethnography, Glaser and Strauss trace the interactions whereby such contexts are constituted, maintained or transformed. For instance, they examine the coalitions and teamwork whereby physicians and nurses work together to keep a patient they believe to be dying in a state of ignorance about their prognosis.

The adjudication of the gravity of medical news, and its possible effects on the patient (whether or not the physicians have pronounced him to be 'dying') is an ever-present feature of bedside teaching and clinical work. At the outset of their work on the wards

students are explicitly coached in the need to maintain awareness contexts: this is especially crucial in the case of closed awareness. On the first day in the hospital with a group (it was their first day on the wards too) we had an introductory talk, which included the specific injunction that students should 'exercise extreme care at the patient's bedside, and put oneself in the patient's place. One does not talk about cancer, carcinoma, tumour, syphilis...' And on the following day, during one of the introductory lectures, I made the following notes:

> Avoid use of word 'cancer', although you may use it in reassuring the patient that he hasn't got it...
>
> With the recent publicity on the harmful effects of smoking, it is now very important how you frame your questions about smoking. Patients will leap to the conclusion that you suspect cancer...

Beyond such maxims and advice, the students I observed at Edinburgh did not receive more formal injunctions on the topic of awareness closure. But at another Scottish University, the students receive such explicit instructions as part of their introductory hand-out for the clinical course ('Notes on the Examination of Patients'). At the foot of the first page, these instructions include:

> <u>A warning</u>: When discussing medical matters in the patient's hearing, certain words with disturbing associations should be avoided. This is so even if they are not relevant to the particular individual. Such words with alternative euphemisms are -
>
> | | |
> |---|---|
> | Malignant disease, cancer growth | - neoplasia or new tissue formation |
> | Syphilis | - specific disease or lues |

Gonorrhoea	-	Neisserian infection
Post-mortem	-	Sectio cadaveris, the Professor of Pathology's wards
Death	-	Exitus

Each clinician has his own method of periphrasis and especially in front of intelligent patients some obliquity of expression is to be commended.

The use of such periphasis and synonymy was frequently recorded in my field notes - although I did not encounter the exotic "Professor of Pathology's wards'. Clinicians and students alike used terminology such as 'space occupying lesions' for tumours, and 'neoplasia' or 'neoplastic process' for 'cancer'. (Students complain that such periphrasis is becoming hard to sustain. The wide dissemination of information about disease processes - particularly malignancy - in recent years makes it difficult to ensure that an alternative word or phrase is unknown to the patient. Not only has 'carcinoma' joined 'cancer' as a lay term (and hence become unusable), 'neoplasia' is also becoming too familiar a term for confortable use at the bedside).

> John explained that they were always warned against the use of emotive terms in front of the patient. You don't say lung cancer or use common terms like angina. Instead of cancer you say something like 'the lesion may be mitotic in origin'. He also said that the word 'neoplasm' was getting too well known by the public.

Teaching presents a possible threat to the preservation of closed awareness contexts that have been negotiated by the hospital staff vis-a-vis their patients. This is so on two counts. First - and in the early days of the year this was especially so - students may unwittingly blurt out medical information which the clinician

may wish to remain covert. Secondly, while students and staff may be aware of the necessity for awareness management, and students may orient their talk towards such a consideration, the very nature of teaching places great strain on the preservation of closed contexts. The act of teaching must make accountable for the participants (the students in particular) the basic features of the patient's history. As such accounting must be done publicly, talk may be open to the scrutiny of the patient in a way which does not normally occur. There is less possibility of the doctor making some brief, muttered comment and passing on. If he wishes to spend any time at all in using a patient as a teaching resource, then the interaction at the bedside is always liable to render the accounting of his illness open to the patient, and thus to threaten previously negotiated contexts. Templeton touches on this point in his observations on bedside teaching:

> .... the reporting of the patient's history and physical findings at the bedside placed the student in a paradoxical position of trying to choose vocabulary that would both clearly explain the problem to the group but which of necessity would keep certain facts from the patient.... and discussions which took place in the patient's presence without including the patient as a participant inevitably exposed the patient to... unpleasant focus on the unfavourable aspects of the patient's prognosis.
>
> (Templeton, 1967).

Thus, the accountability of the illness and the patient's potential access to knowledge of his condition as it is made public, may provide grounds for the patient moving from a state of closed awareness to one of suspicion. Students can therefore find themselves confronted by the problem of how to discuss things with their teachers without

spoiling the patient's state of awareness, or causing distress. As one student put it,

> 'When you're asked to discuss what you think is wrong with the patient... I wish we could go away from the earshot of the patient... You might say the wrong thing. You think desperately how you can describe the lump without frightening people...'

Hospital patients have been observed to try to elicit information from various types of personnel in the wards. The patient who is anxious or suspicious as to the nature of his or her condition will attempt to 'pump' people for information. If doctors will not divulge what the patient feels to be sufficient information then the nurses will be turned to (Glaser and Strauss, 1965, p.55 ff.). The students who come to talk to them also offer patients a further possible source of knowledge. Hence it is a continuing concern of students to guard against divulging information. Several of the Students I interviewed told me that when they were clerking a patient individually they had been asked 'awkward questions'.

e.g., Heather Morgan had had a patient ask her about her con dition on her first day of clinical work in medicine. She added that she had had to 'hedge' and avoid giving the patient a direct reply.

Glaser and Strauss (1965) describe how the nurses were able to avoid such problems, to some extent at least, by referring patients to the chain of command on the ward. They were able to deflect unwelcome or embarrassing questions by telling the patients that they should ask the doctors about their condition and prognosis. As the authors quote, they would use a variant of the reply 'I don't know, I'm not a doctor'. In precisely the same way, the students can employ their novitiate

status as a resource in resolving any potentially difficult or distressing 'suspicion context':

> If patients do ask awkward questions about their condition, then it is an easy let-out to say that you are a student, and to tell the patient to ask one of the senior physicians about it.

Thus the students can claim either that it is not their place to discuss such things with the patients, or that, by virtue of their ignorance, they are not in any position to do so anyway.

A problem in this regard arises from the students' infrequent and spasmodic contact with any given patient. Since they have not normally followed a case from admission to the ward, through the remainder of the patients' hospital career, students are not always in a position to tell what the patient knows or does not know already. Hence it may be particularly problematic for them to judge what to impart to the patient about his illness, since they are not 'clued in' to the previous negotiations between staff members and the patient in question.

> Heather told me that two of them had been talking to a patient who had asked them about her condition. The students hadn't known how much she knew already, and so had no idea how much they could reasonably tell her.

The students' dilemma in this matter is made worse since different clinicians employ different 'rules of thumb' in deciding how much information to divulge to patients. As one student put it, 'some consultants are adamant that the patient should never be told; others believe that it depends on the patient concerned'.

When patients use the students as an alternative source of

information they are sometimes successful in eliciting reassurance. It is by no means unheard of for patients to imagine that they are much more gravely ill than is the case, and if they voice their fears, then students can try to put their minds at rest. When illness is not serious or terminal, then students are at liberty to offer information and explanations. One of the students, Alan Pickering told me that -

> A patient he was clerking had come in after a bleed: the patient thought he was still bleeding, as he was passing black stools. He was worried, but was unwilling to talk to the doctors about his fears. Alan was able to reassure him that the colour of his motions was caused by the iron tablets that he was now taking.

When the doctors appear unapproachable, more junior personnel are turned to by patients (cf. Cartwright, 1964). A concern for the management of information is therefore something which students must learn in accomplishing medical encounters.

The control of information and the preservation of awareness contexts is by no means the only way in which patients' information concerning their condition is a factor in bedside teaching. Further discussion of information control is introduced in following sections of the thesis.

3.3 : Insulation from the rest of the Ward

The scenic and ecological arrangement of bedside teaching emphasises the two features of clinical education. Insofar as the teaching is located in a hospital setting, in some respects it does share features of 'medical' situations. But against that background, the educational situation is to some extent distinct from the medical milieu. As it progresses, the teaching round seems almost completely insulated from the other goings-on in the ward. It is, in Goffman's terms, an 'ecological huddle' and as it moves from bed to bed in the ward enclosed by its 'membrane', to take another of Goffman's terms (Goffman, 1961a).

As the students cluster round the doctor and the patient's bed they produce an inward-looking gathering, with the patient as the point of focus. The action is divorced from the rest of the ward about the group. Frequently the symbolic membrane round the group is given physical reality as the curtains are drawn round the bed, or screens brought round to preserve the privacy of the situation, and the doctor and students crowd round inside the screens. The space round a patient's bed is usually severely limited - a small territory which marks the limit on any privacy he can normally claim for himself. The invasion by a doctor and a group of students (up to twelve in number - sometimes plus a sociologist) creates a tight scrum, with the patient in the middle. The patient is entirely enclosed within the group. This huddle is very rarely intruded upon by the comings and goings of other people about the ward and the invisible boundary round them is seldom broken. The students appear on the ward, but they are not <u>of</u> the ward; they have no clear identity or function within it. Hence there is

little or no call for the students to interact with other medical or paramedical personnel.

The hierarchical nature of ward life is also demonstrated in the separation between the teaching session and the rest of the ward. The clinician's authority and power ensure routine ward-work will impinge on his teaching session.

> e.g. at about this point, there was a bit of a commotion as some staff (i.e. paramedical staff) were doing something or other and chattering rather loudly. Dr. McLellan called out sharply to them, asking them to be a bit quieter.

As we were inside the screening curtains, I could not see exactly what was going on beyond the pale. Whether or not the noise was produced by important clinical work or was idle 'chit chat' I had no way of knowing. But on an occasion which followed a couple of days later, it was clear that the disturbance was the outcome of necessary ward work.

> At the nearby bed, porters and nurses were trying to get a patient out of bed and onto a trolley: he was very heavily built, and appeared to be in a semi-conscious state. There was a bit of a commotion, as there were four of the nurses and a porter trying to do it. Dr. Essex stopped teaching for a moment, and raised his voice against the noise. 'Excuse me do you think you could modify your voice a little?'.

The noise did die down, and the teaching was able to continue. No explicit reference was made to the patient and what was being done to him. To some extent, then, the situation parallels that unusual type described by Goffman (1971, p.33), in which 'the setting follows along with the performers'. Goffman instances royal processions, funeral

corteges and the like - and the ward round is rather similar to these paripatetic gatherings. Goffman goes on to suggest that 'In the main, these exceptions seem to offer some kind of extra protection for performers who are, or who have momentarily become, highly sacred'. The degree of sacredness attached to the teaching round depends to a large extent on the rank of the clinician in charge. The consultant can generate an aura of inviolable sanctity (and exclusiveness), whereas the more junior grades of staff are less able to produce and sustain such a definition. In almost all cases, however, the ward round remained set apart from the rest of the ward.

It is in the nature of the insulation of the students from the rest of the ward that there is little interaction between them and the nursing staff. Apart from the occasional informal encounter, I observed next to no student-nurse contact. This is in sharp contrast to popular images of student activities. It appears to be widely held stereotype that medical students' work regularly brings them into contact with the younger members of the nursing staff - to their pleasure - and with senior nursing staff - to their chagrin and discomfort. This is, of course, part of the romantic myth of the general hospital, where nurses are attractive and sexually available to the male members of staff (cf. Atkinson, 1971), and which is fostered repeatedly in popular literature, film and television. It is part of the professional development of the medical novitiate that he should take on more and more responsibility for the routine work of the hospital, and to that extent, he comes to interact more and more with the nursing staff. The students in their first clinical year do not have such responsibilities, and so they do not have such

working relationships[1].

The lack of contacts between students and nusring staff was also noted by Becker et al., (1961, p.197) in their study of Kansas. They also note that popular notions of medical training tend to overstress the importance of the nurses' role, and the rate of interaction between students and nurses, and they also suggest that the idea 'may possibly derive from the very much larger role she plays in the work lives of interns and residents'.

In the first instance, then, the teaching-round is distinct from the routine work of the wards; it does not enter into the day-to-day therapeutic work being performed on the patient. The rounds and bedside lessons I observed were almost all teaching rounds, conducted by just one clinician with a group of students. This is in contrast with the traditional stereotype of the junior students tagging along behind the consultant and his entourage of registrars and housemen, ward sister and nurse - occasionally being thrown a scrap of information as the consultant checks the progress of his patients - as described by Richard Gordon:

> First, of course, was Sir Lancelot, the therapeutic thumderbolt. A pace behind came the registrar, and behind him the two house-surgeons, the senior one leading. After the two housemen was Sister, her long cape trailing behind her like a wind-stocking on an aerodrome. She was followed by her senior staff nurse, who carried a trayful

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1. This was highlighted by the students' responses to one questionnaire item (see above). Although it is sometimes reported that female students are misteken for nurses by the patients, none of the 'girls in white' reported that they had been seen as a 'nurse or orderly', and only two of the male students felt that they had been so perceived. To some extent, this does emphasise that the students are identified with the doctors, and are relatively separate from the paramedical staff.

of highly polished instruments with which the patients could be tapped, scratched, and tickled in the aid of making a diagnosis. Sir Lancelot never used any of them, and probably did not know how to, but they were produced every Tuesday nevertheless, like a ceremonial mace. Behind the staff nurse was a junior nurse bearing a thick board covered with a pad of paper, to which a pencil was attached with a piece of string. The board was marked sternly "SIR LANCELOT SPRATT'S DRAWING PAPER'. On this he would sometimes sketch points of anatomy - not often, about once every six months, but the board had to be flashed to his hand if he asked for it. In the rear of the junior nurse, in the winter months a probationer carried a hot-water bottle in a small red blanket for Sir Lancelot to warm his hands before applying them to exposed flesh.

At the end of the party, behind even the hot-water bottle, were the students: an un-uniformed, disorderly bunch of stragglers.

(pp. 77-78).

In contrast with this grandiose and flamboyant picture, the bedside teaching and ward rounds I observed were generally subdued affairs. The instruction of fourth year students was, usually, separated from clinician's ward rounds. Very rarely did a nurse or ward sister participate. Again, rarely were junior students taught along with seniors. On occasions when pressure of work or staffing shortage meant that teaching and routine ward-work had to be conflated, or where the clinician designated to teach had to perform routine duties, this was taken as an untoward occurrence by the clinicians and an occasion for apologies.

e.g. Today I went along at 11.15, as the students were doing individual ward work until that time. We then were due to be taught by Dr. Harvey: when he arrived he said that

> we would have to join his ward round, and he was afraid that the juniors would be getting 'a rather raw deal' out of it, and they should butf in and ask questions if there was anything they didn't understand.

The untoward nature of this 'confusion' of the routine and the educational work of the wards was to some extent indicated also by my own reactions to this episode. Although I did not record it fully at the time I know that the event caused me a great deal of anxiety. I had previously introduced myself to Dr. Harvey, and had been present at one of his teaching sessions, but I had no way of knowing whether he had registered my presence among the group of students. And whilst I felt I had established that my presence at the 'teaching session' was legitimate and required no further negotiation on my part, I had the feeling that with regard to a ward round I might be intruding into an area of medical work where I had no warrant to be. The possibility of needing to justify my presence suddenly, not only in front of the students, but also in front of people who had little or no knowledge of why I was there (e.g. the ward sister, some of the junior doctors) was disturbing. Also, I suspect that I felt - barely consciously perhaps - that there was always greater possibility of my being exposed to 'unpleasant' or distressing cases in the course of a full round. (In the event, the entourage grouped quickly round the consultant and took up position by the first bed. By that time there appeared to be little chance of disrupting the ward round, so as to set my own mind at rest. Faced with the alternative of slinking off and achieving nothing, and joining the ward round feeling apprehensive, I joined the round).

The fact that I came to feel uncomfortable in this situation brought home to me the division between the everyday clinical round and

the teaching session. Faced with the former I felt an intruder, in contrast to my feeling relatively at home in the latter situation. The continuation of my field notes also underlines the non-teaching aspect of the round. Although Dr. Harvey, in apologising for the morning's arrangement, had asked the fourth year students to chip in with questions, I recorded after the round:

> In fact there was relatively little questioning on the part of the students, and Dr. Harvey did not question them on many occasions.

I am not suggesting that there is necessarily no educational benefit in students' participation in such an exercise - simply that it is not treated as a scheduled part of the teaching programme.

On the other hand, I did record events connected with that ward round which were clearly to do with the day-to-day clinical work of the ward:

e.g., One old lady had a harmatological disorder which was puzzling the physicians. They had ordered a wide variety of tests to be carried out, and the time we spent at her bedside was mainly devoted to the consultant and the junior doctors rifling through the case notes to try to sort out what had been done and what had been discovered.

Another old lady had been admitted with severe diarrhoea. The houseman wanted Dr. Harvey to see her particularly. I could hear the houseman tell Dr. Harvey that she had been in the (peripheral) Hospital on a number of occasions but they had been unable to do anything. On Saturday she had been feeling very unwell, very depressed and very much sick and tired of doctors. The hospital had refused to admit her again and her G.P. had managed to get her admitted to the Royal Infirmary. Dr. Harvey looked very cross indeed and snapped, 'In other words, the G.P. has passed his problem on to us!'

> Whilst this was going on, another houseman came up from the ward downstairs, and told Dr. Harvey that a patient had just died. He said something to the effect that their guesses were getting better, and that the patient had died more or less as and when expected. The houseman added that he thought that Dr. Jarvis would like to remove some of the organs...: it was necessary to get them fresh, and they had to be taken in a couple of hours. Dr. Harvey said that if Dr. Jarvis would care to arrange that himself, that was alright - otherwise it could 'go through as normal'. The houseman said he would 'phone Dr. Jarvis, and would also get in touch with the Medical Superintendent for the permission of the next-of-kin.

Such features as these I have reported from my notes did not normally intrude upon the teaching scene. It was occasionally the case that clinical duties would compete with a doctor's teaching commitment, but it was more frequently resolved by the absence of the doctor (e.g., called away by his 'bleeper') rather than by a conflation of teaching and routine work.

The management of the intrusion of such work upon clinical teaching is also demonstrated by the following extract from my notes:

> 'Dr. Raymond told me, slightly apologetically, that this wouldn't be a very formal session, as he would talk about some stuff they had been doing last week, and he now wanted the students to start thinking about the relative importance of the various methods of examining a patient's chest. Also, he said, he would be stopping to discuss something with Dr. Gill (the senior consultant).

He then took his group of students to the bedside of a patient in the male ward, and set them examining him. My notes continue:

Whilst the students completed their examination, Dr. Raymond was talking to Dr. Gill and the other members of the chief's ward round: I could overhear some of their conversation - and could hear that Dr. Raymond was telling Dr. Gill about the same patient (as he was teaching on). When he rejoined the group of students Dr. Raymond had a few words with me, telling me that he had to try to strike a balance between the needs of teaching and the management of his patients.

I observed something of the same sort of thing in surgical units. On one occasion, for example, one of the surgeons was due to teach a small group I had attached myself to. When he came to find us, he explained rather apologetically that he had routine work to get on with, and this made his teaching difficult. The problem was that he needed to take blood from a patient and test the blood gasses on a regular schedule of half hourly periods, which made it hard for him to give the students his full attention. In fact he took the students along with him while he performed the simple procedure and they watched while he did it. Between blood samples he talked to them about the patient and the test he was carrying out on her. As a matter of fact, the students seemed to be quite happy to observe the procedure and follow on while the surgeon went about his work. This was so to such an extent that when the clinician returned to the patient at the end of the teaching session, he clearly expected the students to leave him and wander off; but he was surprised to find them coming with him once more, to see the patient again. Although the doctor seemed to assume that the students would not appreciate this routine work, his assumption was not borne out. In the event there appeared to be no reason why he should have apologised to his

students. Yet he did so - on the basis that they were not going to have a specially prepared and laid on teaching session. (As I shall describe in more detail, students in fact appreciate such opportunities to 'see things done').

Such 'remedial exchanges' (Goffman, 1972, pp.124 ff.), then, highlight how some varieties of clinical education are normally segregated from the routine work of the hospital ward. This is particularly true of the bulk of 'bedside' teaching; 'apologies' and explanations appear to be appropriate if the two become confused.

The conduct of teaching in the course of on-going medical work does occur, in a number of relatively well defined contexts. These are primarily the operating theatre, out-patient departments and waiting nights. On such occasions the students are present whilst the doctor works on a patient as part of his normal medical work. Whereas the main preoccupation of the teaching-rounds is educational, in these types of encounter the educational tasks must take second place to the diagnostic and therapeutic goals being pursued by the medical staff.

Yet even in these contexts, interaction between students and the hospital staff is minimised. In the out-patient clinic, for instance, the location of the consultation within the consulting room or cubicle means that the situation is one which remains confined to the clinician, students and patient. Again, it provides little or no opportunity for the students to engage in routine interaction with hospital personnel outside that focused group. Also, of course, it could be argued that the out-patient clinic is itself somewhat removed from the main concerns of the hospital staff and represents a peripheral

activity.

In the operating theatre too the students tend to be segregated. By and large they do not participate on the operating theatre floor - and do not therefore interact with the operating team members such as the theatre sister, the scrub nurse, anaesthetist and so on.[2] Either in an open gallery[3] or behind glass they may be spoken to by the operating surgeon, and may be called upon to answer questions on anatomy or surgical technique. But they take little or no active part in the proceedings on the theatre floor: they are observers of the action.[4] But unlike the action the students observe and participate in on the teaching round, at least here the students can observe the 'real' work of the surgical unit rather than specially contrive teaching situations.

Students appear to be least segregated from the daily life of the ward when they attend on waiting nights. As I have already described, the students come into their respective clinical units during the late afternoon or during the evening and can stay well into the night. (How long they do stay depends on their personal interest and motivation, and the amount of action that is going on to hold them there - some nights can be very quiet, others very busy). On these evenings, they are present when new patients are admitted with acute conditions. They therefore have more opportunity to see the work of

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2. Exceptions to this, and students' perceptions on participation in 'the action' will be considered in more detail subsequently.

3. When the students observe from an open gallery they wear gowns, caps and masks, although they are not scrubbed-up and sterile.

4. As the questionnaire revealed, being a 'passive observer' is a salient feature of students' perceptions of their teaching in surgical cliniques.

junior hospital doctors as they admit the patients - take a history and perform a physical examination - and initiate any treatment that is appropriate. On occasion the students may themselves be allowed to take a patient's history. As I discuss below, this opportunity to be 'where the action is' represents an important feature in students' perspectives on their clinical instruction and experience. This distinction will be amplified in the discussion of the students' use of the notion of 'hot' and 'cold' medicine below).

The point that I have been making is that in some ways clinical teaching is kept distinct from the normal work of the hospital. This can be illustrated further by a consideration of the scheduling and timetabling of clinical work and bedside teaching.

In the first place, a great deal of the work in the wards can be described under the general rubric of <u>routine</u>. The daily round of the patient's life is marked by a recurrent cycle of management by the doctors, nurses and other staff. Although it does not fit Goffman's ideal type exactly, the general hospital displays some features of the 'total institution' (Goffman, 1968). The hospital shares with other institutions of this type the fact that it is an all-encompassing organization. For the inmates (the in-patients, that is) the hospital as a complex organization orders and regulates their life for 24 hours a day. It is a relatively enclosed community: obviously, it is not so rigidly segregated as a monastery or prison (two varieties that Goffman uses to exemplify the notion) but for the patient in bed, the outside world is not directly accessible, and its representatives (his visitors) may only appear for limited periods and at set times. Again, from the patient's point of view, the hospital shares this similarity

with the total institution - the fact that to a considerable extent the inmates are 'batch-processed'. Although individual patients will have their own regime prescribed for them, and their own pattern of therapy, these individual routines must be set within a wider framework of activity - one in which the patients' daily lives are conducted in lock-step. Their lives are collectively scheduled through the ward routine - by the timing of waking up, washing, bedmaking; meals are scheduled; the passage of time is marked by the consultants' and registrars' ward-round, etc.[5]

Although they may be less regular in nature, life on the ward is also marked by other types of routine work. The patient's stay may be marked by a timetable of therapy - the collection or urine at regular intervals, the regular removal of bloos samples, etc. Similarly, there is a constant backgroumd of coming and going by the medical and paramedical staff. Most clearly observable of this is the activity associated with the work of the various specialist units and 'limited practitioners' (wardwell, 1963) at work in the hospital. Such practice includes that of X-ray departments, physiotherapy, occupational therapy and so on. Indeed, on a busy morning the ward of a teaching hospital is a bit of a beer-garden: nurses are busy with their duties; doctors are visiting their patients either alone or in rounds; physiotherapists are walking patients up and down; radiographers wheel portable X-ray machines in and out of the ward; porters wheel patients off to specialist departments for tests, procedures, etc. ; and on surgical units they take them back and forth from the operating theatres.

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5. These aspects do not exhaust the 'total-institutional' features of the general hospital. As Weir (1972) has pointed out, the incoming patient (even a day-patient) suffers a similar symbolic fate to that of the new inmate of the 'asylum'. That is, he suffers 'mortification' (Goffman, 1916b), insofar as he is stripped of his normal, everyday identity - symbolised by his clothes and belongings - as he is initiated into the role of the hospital patient.

Thus, insofar as there is any observable order, the order of the hospital ward is achieved through the formal and informal co-ordination of the work of the various specialists and grades of staff; the order is achieved through the ongoing process of negotiation of work practices and their timing (cf. Strauss et al., 1964). Although such order is not always achieved, the smooth running of the ward depends upon the successful interlocking of the various timetables and routines of the various hospital tasks.

In many ways, the teaching which takes place on the wards cross-cuts these interwoven patterns of work. Bedside teaching does not necessarily follow the rhythm of the ward. To take a simple example, patients' morning tea or coffee may often lie cold and abandoned on the bedside tables as their elevenses coincide with a visit from the teaching round. Similarly the tail-end of the morning's teaching may coincide or overlap with the distribution of the patients' lunches, and so the two activities become mutually disrupting. When the schedules of routine therapeutic work and educational work clash, the entire educational exercise may be threatened. A major consequence of such contingencies is reflected in the problem of access to patients. This becomes particularly crucial for students when allocating to work individually with a patient over several days - to take a full history and complete a full physical examination and hand in a written version plus differential diagnosis. When they come to visit their patient they may quite often find that he or she is unavailable, and is being worked on by other personnel or away in another department.

I frequently spoke with students who were hanging about in the corridors or 'sloping off' for coffee because 'their' patient was not available to answer their questions or submit to their examination.

e.g. I went out to find the students, who were waiting in the corridor. Two or three of them were chatting with one another. Cross said he didn't know how he was going to see his patient this week, as there was an extremely long list of things they wanted to do to him.

As I have indicated, this could arise from a multitude of hospital routines. Students occasionally went into the wards to interview a patient only to find that they were in the line of progress of a ward round led by the chief of the firm, and had to beat a retreat to the canteen or corridor. For students undertaking 'clerking' the problem of access is acute; since they had been allocated to specific patients, the expedient of sidetracking to a different patient or task was not generally open to them. This, of course, contrasts with the position of the teaching physician. He too may find a patient unavailable, but he is able to redefine the work of the session - for instance to discuss the patient <u>in absentia</u>, the results of tests carried out on him, present the X-ray pictures, etc. He is also free to move on to another patient, or even to a different illness from the one he originally had in mind.

> Whilst Dr. Shepherd was teaching, Dr. Mayer came into the teaching room. 'We have a terrible problem', Dr. Mayer broke in, 'Mr. J. has gone to the (peripheral) Hospital'. Dr. Shepherd replied, 'Oh well, he'll be back in a day or two, and the boys can go round and look at him'. (And for the subsequent teaching session, for which the doctors had expected to visit that patient, an alternative topic and a different patient were improvised).

Occasionally, doctors may ignore the disappearance of the patient and conduct the teaching session at the empty bedside. (This was sometimes pointed out to me by the students as an extreme example of the

'contrived' nature of some bedside teaching - that such 'clinical' work was done without the participation of the patient).

> When we turned to talk to the second patient, we came to an empty bed, and Mr. Jackson explained that, as often happens, he had been 'whisked away' to X-ray, and that probably his X-rays had gone with him. Still, he said, he still had the notes, and we could go back to the teaching room in the other ward.

In general, these problems of <u>access</u> involve a <u>postponement</u> of students' clinical work. However the competing schedules of therapy and education may offer more permanent obstacles to the students. Thus the patient's hospital career may come to an end and all further access is precluded. Thus, while a student is working on a patient, he or she may be discharged and sent home:

> Jane Peters had a case-history that she had written up, and didn't know whom to get hold of to hand it in. John Carter had also written up his history but likewise hadn't handed it in. Jane Peters said something to the effect that hers was the last to get done, and Dougie Callan said that he had been unable to complete case-notes on his patient, since she had gone home. One of the others commiserated on the difficulty of having a patient go home.

An alternative outcome, which leads to the cancellation of students' work rather than postponement, is the death of a patient. Again, as with the timing of recovery and discharge, the estimated timing of death is an uncertain eventuality and can be an unforeseen disruption of the scheduling of educational work.

> Jim Barnes said he hoped that perhaps Dr. Roy who was due to teach the clinique, might show them the case of paraquat poisoning. (The case had received

> wide publicity in the city and was one of a number of similar self-poisonings that had occurred in recent months). Clay said that the patient had died last week. 'How inconsiderate', said Barnes.

The two features of the unpredictable timetables of illnesses, and the divergent schedules of teaching and other hospital work are sharply highlighted in events which surround the death of a patient.

Although the patient's death will inevitably interrupt students' history-taking and diagnostic exercises, that patient does not cease to be an object of clinical and instructional interest. There is the post-mortem to be performed. But the patient may expire at a time which does not cohere with the schedules of teaching, and the routine of the pathologists does not necessarily take account of their schedule either. This can be illustrated from the following case-summary.

> The patient in question was an alcoholic, suffering from a number of severe problems, including brain damage. He was not bleeding from the gut: surgeons had been unable to trace the source of the bleeding and further surgery was not possible. The patient was barely conscious and it appeared that little could be done for him.
>
> The students examined the patient, and then retired to the teaching room with the consultant to discuss the management of the case. At the end of the session the consultant told the students that this patient would last three weeks, perhaps less. He would, he added, 'make an interesting post-mortem - you ought to go along'. There were a number of issues which a post-mortem would demonstrate to the students - one, the exact state of the patient's liver, and, two, the site and nature of the lesion from which he was bleeding.

> Just over a fortnight later, as I chatted with students in the coffee-bar, they were complaining that the patient had died the night before last, and the post-mortem had been completed the following afternoon, when none of the students could be present.

The unpredictability of clinical time may also disrupt the smooth flow of education in surgical units. The teaching of students must be fitted in with the important work of operating. Whereas physicians may be able to schedule their rounds with a fair degree of accuracy, surgeons may find it more difficult to predict the time that they will have to put in to complete their list of operations. Operations may not prove as straightforward as first thought, and the time allocated may have to be exceeded. Once committed to the morning's work in the theatre it must be completed. Surgeons have less manoeuverability in the possibility of sidetracking from the schedule of therapeutic work to that of teaching. Hence students complained that in some units - particularly those with a small staff complement - they were not infrequently left stranded with no-one to teach them, as the surgeons were unable to get away from their clinical duties when the timetable indicated.

Thus, in this regard at least, the scheduling of clinical and educational work presents the students with problems of access both to patients and to clinical teachers. Indeed Becker et al., (1961) identify problems of access as the major difficulty facing the Kansas students in their first clinical year.

> The major problem patients present for the student on the hospital wards, then, is to maintain this continuing relationship in such a fashion as to be able to get the necessary information for the job he is assigned.

As I have argued, their formulation glosses over 'problems' for the student which are equally, if not more, important. The problem of students' access to information from and about their patients is of great significance in the jccomplishment of clinical work.

Becker et al. do not even cover all the implications of time in the wards. Hospital wards have a rhythm based upon the patterns of admissions and discharges. The units admit patients for emergencies on a rota basis - each ward having a different 'waiting' or receiving night. Thus on, and immediately after, waiting night, the ward has 'fresh' clinical material. As the week wears on there will be a diminishing number of patients for students to see, whose stories have not been told and examinations taken place.

Thus the turnover of patients in the ward, and the duration of their stay also have a bearing on the performance of clinical teaching. If there are many patients in for a lengthy period - e.g. patients who are slowly being rehabilitated after a stroke - then the number of new patients will be restricted, and units may even run out of fresh patients to teach one. Such an eventuality may occur in medical units, but is highly unlikely on surgical wards. The mean duration of hospital stay varies markedly between general medical and general surgical cases. Available official statistics for the region cite a mean stay of nearly eleven days for surgical patients against eighteen days for medicine (Scottish Home & Health Department, 1973). Hence there is a more rapid through-put of patients in surgery, and little danger of fresh clinical problems starting to run out.

This feature was aptly illustrated in one particular attachment

on which I spent some weeks. The students assigned to the attachment were divided between a general medical unit and one specialising in gastroentestinal work. Whereas the first unit was staffed exclusively by physicians, the second involved surgical cases as well as medical ones. The purely medical unit has a high proportion of coronary patients in the male wards, and of elderly ladies with the after effects of CVAs. The turnover was slow, and after a few weeks of this, the medical unit had run out of patients who had not been exhaustively studied by the students. The gastrointestinal unit encountered no such problems. Whenever students from the first unit grumbled at the lack of patients, those from the second said they were 'on the go' with plenty of cases to keep them busy.

Thus, to summarise, the dimensions of time means that not only do students have problems of access to patients - they also face problems of access to new patients.

3.4 : In Cold Blood: Versions of Clinical Medicine

Hot and Cold Medicine

I have already mentioned some aspects of doctor-student-patient interaction, and I have emphasised how the presence and participation of the patient must be taken account of. In discussing the management of bedside teaching in more detail, this theme is developed further. I begin with an incident which first drew my attention to the nature of bedside interaction - and which underlines the importance of recognising the place of the patient in the successful accomplishment of such occasions. The use of the example lies in the disruption of smooth interaction. Such an approach has been used to good effect by Garfinkel (1967). Disruptions of everyday life make visible the taken-for-granted background features of social life which may normally pass unnoticed. When things go wrong, one may get some leverage on how events are normally managed, and how actors routinely produce smooth, untroubled interactions. Disruptions may be deliberately contrived, as were Garfinkel's (1967) illustrative exercises, or may be naturally occurring episodes in ongoing encounters. In adopting this starting-point, I shall use a type of naturally occurring action which can disrupt, or spoil a bedside interaction between students and patients.

I was standing with a small group of students who had been taking histories from patients, either individually or in pairs. As we hung about in the corridor, we were joined by one of the female students. She immediately began to complain about 'her' patient: as she had begun to take the history, the patient had immediately told her that she had mitral stenosis, as a complication of rheumatic fever contracted in adolescence. She had, the student complained, 'Spoiled all the fun'.

This episode, and its connotations of a spoiled encounter, gave me an entree into the problem of social order at the bedside. The feature which emerges in this context is the diagnosed nature of patients in the course of morning teaching rounds; their trouble has been at least differentially diagnosed, and the diagnosis may in fact be considered definitive by the hospital clinicians. Management of some sort will have been initiated, tests ordered, procedures undertaken. Symptoms such as severe pain will have been controlled if possible, and physical signs may have abated or disappeared altogether (e.g., high fevers, blood loss, etc.).

This aspect of the teaching round is recognised by students. They contrast it with cases that they see on waiting nights. In student jargon, the distinction is sometimes characterised as a difference between 'hot' and 'cold' medicine. On the one hand, 'hot' medicine is seen as exposing the students to 'real' medicine: histories are being taken for the first time and are crucial to the patient's treatment; the illness must be managed and diagnosis attempted. There is a sense of the dramatic, the unpredictable, and the rough-and-tumble of acute hospital medicine. 'Cold' medicine, on the other hand, is seen and characterised as 'contrived', and carefully managed encounters; they lack the same sense of immediacy and unpredictability.

The bedside teaching session ('cold medicine') is a social encounter which is constructed in such a way as to simulate a supposed 'reality' of normal medical work ('hot medicine'). I have indicated some ways in which the situation is located in a medical context - and thus resembles the 'real world'; I shall go on to discuss how it differs.

Although a history may have been elicited from the patient on a

number of previous occasions, in the course of 'cold', bedside teaching, the students may be asked to take one yet again.

e.g., The patient said at one point, "Half the students here have seen me before, and my history is as big as that ....' He held his hands apart to indicate a thick pile of notes.

and

> The patient interjected that she had told her story so often that 'I should have brought along a tape-recording'.

This feature of bedside teaching is also recognised by members of staff. For example, in the introductory talks at the beginning of the year I noted the following.

> Dr. Morgan commented that they might experience a natural feeling of depression on seeing a patient who had already been thoroughly examined, and of thus being an imposition on the patient.

This distinction is remarked by students in their perceptions of their waiting nights. As one student expressed it to me:

> I went to three and watched what they were doing. You were there while the actual history was being taken, not listening to it for the tenth time.

And another girl offered the following recommendation of waiting nights as educational experiences:

> Seeing things as they happen rather than being taught on things once everything's been decided.

Although one student told me that he had not himself got much out of waiting nights on his own medical unit, he recognised that other students saw this advantage in waiting night attendance:

> ...most of the clinique wanted to go along - to see how the doctors dealt with admissions when they came in rather than the next day when everything was fine.

Attendance on waiting nights therefore allows the students to become more involved, at first hand, in the therapeutic work of the ward personnel. They are, so to speak, 'in on the act'. As one girl put it, 'It was good on waiting nights - they <u>included</u> us'. Students see things as they are done, and can see for themselves the practical significance of clinical procedures. This is exemplified from the following report of an interview with one of the students on a surgical unit:

> She followed a final phase student or resident while they took a history, suggested a diagnosis, or decided what to do. She said that she had learned a couple of practical tests - venepuncture and emergency haemoglobin tests. Waiting nights are useful, since they illustrate the practical versus theory. Things take on a new significance, because patients' conditions are more acute, and there is an emergency.

The students thus get a chance to participate more directly in the clinical staff's work with the patients who arrive in the wards. Even when staff members are too busy to stop and 'teach' on the new patients, the students whose turn it is to spend the evening with them can still be present; they can look over the shoulder of junior doctors or senior students as they admit patients and perform the initial clinical tasks of diagnosis and management. In contrast with the work of clinical teaching in the mornings, the students also get some opportunity to do things for themselves, as well as seeing things done. They can 'have a go' at simple procedures such as drawing off a blood sample.

Since what happens on waiting nights depends upon the unforeseen and unforeseeable intake of new patients, what the students can actually see and do on any particular night is variable and unpredictable. On the mornings after waiting nights it is a normal topic of conversation for the rest of the members of the clinique to ask those who had been in for an account of what had happened. Often they have to report that little or nothing occurred. Sometimes only one patient was admitted during the hours that students spent on the wards. They can find themselves 'hanging about' with no dramatic events to engage their interest. For instance, I was chatting with a group of students at the end of the morning's teaching:

> I asked Brian if they had been into theatre very much and he said that they had, especially on waiting nights, when one of them would scrub up and assist at the operation. Margaret added that waiting nights were the only time when they learned anything. Harriet interrupted him, saying that <u>that</u> depended on there being anything happening. One of the other girls said, 'Oh, didn't you have anything?'

Harriet admitted that when she had been in, there had been no new admissions, and so little or nothing for the students to do with themselves. In an interview one of the male students offered the following account of his first experience of coming in on a waiting night:

> 'The first waiting night was appalling. It says on the noticeboard that you're expected to attend waiting night from seven to nine. I arrived at seven and nothing was happening. Admittedly not many patients had been admitted...so we went down to A and E[1] on our own, and saw the one patient

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1. Accident and Emergency.

> that had been admitted. Then we went to the pub... we came back later, but only cuts and bruises had come in'.

Although he was complaining partly about the organisational arrangements of the unit he was on, the lack of admissions clearly also limited what the students could see and do even on their own initiative. On the other hand, students may find themselves with plenty to do as patients come in during the evening. This is reflected in the following report of a conversation with a student who was attached to a surgical unit at the time:

> Sean talked to me about waiting nights. With nine members of the clinique, and a term of ten weeks, since the students came to waiting night three at a time, it meant that they were only supposed to attend three waiting nights altogether. Sean told me that last time he had stayed from three o'clock in the afternoon until three o'clock the following morning: there had been things happening all that time. He hadn't noticed the time pass, as there had been so much to occupy him - going backwards and forwards between the operating theatre and the Accident and Emergency department. He had been asked if he would like to admit a patient, and he gave a pantomime of the enthusiasm with which he had accepted the offer of the chance to do so.

On occasion students find themselves pitched into the most dramatic and critical sort of medical incident. One student was on the wards one evening when there were two cardiac arrests simultaneously; he found himself thumping a patient's chest in an attempt to resuscitate him. (Although he managed to break some ribs in the course of the external cardiac massage, he was unable to save the patient).

The 'hot' medicine which students see on their waiting night visits may be rather different from what they are used to from the normal morning teaching rounds. As I have already indicated, although patients may still be very sick indeed, by the time they are on the wards, their most alarming and distressing symptoms will generally have been controlled to some extent. By and large, the ward at ten o'clock in the morning presents an orderly appearance. Although the ward may be extremely busy, the patients themselves are mostly in a quiet and stable state. Either tucked up under the bedclothes, sitting in their armchairs or pottering about between the rows of beds, the patients do not normally present a picture of distress and disorder.

On waiting nights the students may encounter something rather different. For instance, while talking with a student in between teaching periods, I heard him describe what he had seen on one such visit in the following way:

> Alan talked about his experiences in Accident and Emergency. He said he had been shocked at the way patients were left down there, and he instanced a young woman who had come in with a haematemesis: she had just been given a metal bowl to dribble her blood into. He seemed to think that something more should have been done - and he suggested that perhaps she should have had blood, or at least fluid replacement.
>
> Alan also said that there had been a 'terrible smell' down there. Apparently a woman had defecated. The nurses had been talking about it unfeelingly - asking one another loudly and pointedly if they themselves smelled of it. Alan pointed out that the patient, who was sitting just behind a screen, must have been able to hear what the nurses were saying.

> Alan also commented to me that the Accident and Emergency department had been incredibly crowded. He described it as looking like a field station at the front in time of war.

This student's report of his waiting night experience clearly reflects the contrast between the relative control and orderliness of what he was used to, and the 'messy', disordered conditions which exist at the 'front line' of 'hot' medical situations. His comments on the woman with a bleed are also illuminating; on the wards he has become used to the replacement of blood loss or fluid loss as a routine procedure. In this instance he took it for granted that loss of blood should be made up by a transfusion (apparently without checking on the volume of loss) and with noldelay.

The waiting nights are of especial relevance to students attached to surgical units. For surgical cliniques, waiting nights provide prime opportunities for students to go into the operating theatres and observe emergency operations as they are done.

e.g., When we were seated drinking our coffee, Graham asked Alan about his waiting night. Alan said it had been interesting; they had ween a colostomy - a transverse colostomy. He also said that they had seen a _____(?) He asked the others if they knew what that was. Graham said, rather tentatively, 'Is it urinogenital?'. Alan said it was. The other student then said he thought it was a 'funny opening'. Alan said no, it was for a retracted foreskin which gets stuck, so that the gland becomes strangulated.

In this way, students see things that are rather different from what they see on the wards, and they can act as informal channels of clinical information for the other students. Not only can students observe surgery on such occasions; they may also be allowed to come

onto the theatre floor and scrub up, and assist at an operation. Thus one girl proudly described to me how on one waiting night she had held a retractor for two and a half hours: she had been assisting at an operation on a middle-aged man for a vagotomy and pyloroplasty. She described how she had watched five operations being carried out, and had 'enjoyed it thoroughly'.

Students' perspectives on the immediacy and 'freshness' of the medicine and surgery they see on waiting nights can be contrasted with the managed nature of the patients' conditions that they see on the majority of other teaching occasions. One boy contrasted the two contexts in describing his experiences in surgery; we were chatting together on the coach on the way out to one of the 'peripheral' hospitals:

> 'After waiting nights', he said, 'Mr. Michael takes the students to see the new admissions. If you've already seen the patient, you keep quiet while Mr. Michael plays games with the others, and sees how well they can make a diagnosis. Then you fill in the details - and try desperately to remember which abdomen it was, when you've only seen a little bit of it in theatre'.

He went on to talk to me about some of the students' grouses and grumbles about the particular unit he was attached to. Apparently the junior hospital doctors had borne the brunt of the students' criticisms.

> One of them had said to Sean that he didn't know what the students wanted. He had taken them to see patients, and they had looked bored; he had shown them slides, and they had looked bored; he had given them tutorials, and they had looked

bored. Sean commented that of course nine of them standing round a bed, looking at a dormant patient was not very exciting. He instanced a patient that they had seen; she had jaundice. Well, they could see she was yellow, and they knew already that she had cancer. Yet they had had to take a 'very false history' - knowing the answers to the questions anyway. He thought that the doctor might just as well have told them, 'There's a patient in the bed - she's got jaundice and she's got secondaries in her liver'.

This student thus drew attention to the contrivance of bedside teaching periods, and the reality of what happened at waiting nights, when the diagnosis was first formulated. He describes the nature of the 'morning after' teaching as 'playing games' and 'false'. One of the female students on a medical attachment made a very similar point to me in the course of an interview:

> In fact by the time we get round to clerking them its really rather ridiculous because, mostly, they've been treated and all their symptoms - all their <u>signs</u> certainly, and some of the symptoms - have gone. And its also about the eighth time they've told their story and they're beginning to abbreviate it a bit by the time they get round to you.... In fact I get a <u>lot</u> more out of going to waiting nights and clerking patients with one of the final phase students. That's when you get a bit of the excitement of diagnosis - nobody really knows.

<u>Non-Therapeutic Encounters</u>

So far I have indicated some ways in which clinical teaching and normal clinical work have features in common, and how they may be differentiated from each other. I shall continue by summarising

some of the implications of these features for the conduct of teaching encounters.

In the first instance, the bedside teaching encounter differs from 'normal' medical interactions in that it is not therapeutic. Specifically designed for teaching purposes, this session is not part of the patient's treatment. Bedside teaching is sometimes spoken of as having a beneficial function for some patients - in terms of keeping them occupied and relieving the boredom of long hours in bed. In that sense it can be therapeutic - but not in terms of the usual processes of diagnosis and management of clinical medicine and surgery. It is occasionally stated by clinicians that there is always the possibility that new information about the patient can be thrown up in the course of bedside teaching and clerking. This does occasionally happen. In discussing with me what had given him the greatest personal satisfaction over the year, one student told me:

> 'In the second term of medicine, I did take a history from somebody and I found that they had been taking an overdose of some tablets.... and I didn't think other people had got that from their history; and the guy said, 'Would you do further investigation - because you found that: look at her urineor anything like that.' I found she had ..(inaudible)..nephritis, I think it was. And that was through that, so that was rewarding I suppose in a way'.

This was the only example I found of a student's work, either in clerking, or during bedside teaching sessions, where his or her enquiries appeared to provide important new information on the patient's condition. On a few other occasions students provided additional information but it did not give important new insights into the diagnosis or management - rather they produced confirmatory

evidence for decisions already taken.

> Sometimes they'll tell you things behind the doctor's back - they'll tell you things they haven't told the doctors. One time at the (peripheral) Hospital a lady was telling me about her drinking habits. I don't know if she'd told the doctors or not - but she told me that she was telling me on the side because she didn't want the doctors to know. She drank about three or four bottles of sherry a day.
>
> P.A. Did you tell the doctors?
>
> Yes. I think they knew she was more or less an alcoholic, but not how much she drank.

Similarly, a student spotted something new during a medical teaching round. We were at the bedside of an old man: the session was conducted primarily as a history-taking exercise. But one of the students - no doubt using the powers of observation, as he had been taught - looked at the patient's hands, and thought he noticed 'finger clubbing.' He asked the physician about this, and she examined the patient's hand for herself. She agreed that there did indeed appear to be some clubbing present, and drew the attention of the rest of the group to it. She added that she had not previously noticed that herself. She complimented the student on his observation, but it was clear that this new sign was not important, and in no way modified the diagnosis.

It is an even rarer occurrence for a student to suggest a form of therapy that has not been considered by the clinicians, and have the suggestion acted upon. I came across only one isolated incident of this nature. I missed the actual occurrence, but I was on the ward the day after. When I arrived the students were standing about, waiting for a surgeon to come and teach them. They were teasing one of their

number (Keith Foster). When I asked what the fuss was about they explained that during an out-patient session, the consultant had not been sure of the best treatment for a woman patient and Keith Foster had made a suggestion which the surgeon had accepted. This had been noted by the students as a 'star' performance. As he himself explained to me afterwards:

> My mother, she's approaching menopause just now and she's having terrible menorhagia... and flushing - her face all flushing when she least wants it to - and so her doctor put her on phenobarbitone because it reduces the oestrogen to acceptable levels... When things like that are sort of personal to me I tend to think it over... and whenever the question arose of how to cut down the level of circulating oestrogens in this woman, I just thought of phenobarbitone. I didn't tell anyone else that - I wanted to look smart.

Because of this student's personal experience, he did appear 'smart' to the consultant surgeon and to his fellow students. The fact that it became such a topic of conversation and teasing among the members of the clinique indicates just how rare and noteworthy such an event was - indeed, almost unheard of.

Normal Patients

The non-therapeutic nature of the teaching exercise is underlined by a consideration of teaching situations where the patient is 'normal': that is, when he or she is examined for features that are <u>not</u> part of the presenting complaint. Systems that are not affected by the patient's condition may therefore be used by the teaching consultant as exemplars of normality. This is particularly apparent during the early weeks of clinical work, when the students are learning the basic skills of interviewing and examining patients. At this stage,

considerations of diagnosis and therapy are of less importance than the fundamental techniques of gathering clinical information. The bedside session appears quite distinctly as an academic, teaching exercise. When the students first practise their examination of the central nervous system, the doctors tend to start them on patients whose own nervous system is ostensibly, unimpaired. Thus, students practise eliciting reflexes from patients who are in the ward with cardiovascular troubles. They use these or similar patients to learn how to test sensations (e.g., sense of vibration, proprioception modalities of touch, pain and so on). Similarly, the examination of the cardiovascular system is tried out on patients with a normal heart, as students learn how to examine the chest, feel the pulses, use the stethoscope, etc.

e.g., Dr. Sayers was in a slightly bad mood when we arrived because the bus had been extremely late and it was 10.40 before we could get started. He took a small group ... and we went up to one of the women's wards. Outside the ward we paused while Dr. Sayers explained that we were concerned solely with technique and not with pathology: he said that the patient's chest was relatively normal. She had had it explained to her that this was what was going on.

The purpose of such exercises is that the students should be able to observe the range of normal responses before they go on to investigate the various systems under pathological conditions. The following episode from my notes illustrates how difficulty may arise (from a pedagogical point of view) in this approach:

> 'Dr. Burton when proceeded to the business in hand - the examination of the patient's nervous system. The patient, he explained, was not in hospital for any

neurological trouble, and the exercise was purely in technique.

> Dr. Burton asked the patient to remove his socks, and invited a senior student to test the plantor reflex. He handed his own tendon hammer to the student, who ran the end of the handle firmly down the sole of the man's foot: there was no reaction. He asked what the possible reasons for this could be, and between them the students produced three acceptable responses - that the patient's feet were too cold; the technique was at fault; there was a lesion in the reflex arc. The doctor asked the patient if he had ever had any difficulty with his legs: he replied that he had not. Dr. Burton decided that their failure must be attributed to taking off the patient's socks (and hence his feet getting cold).

Here the pedagical exercise became problematic. The patient had been defined as 'normal' - at least, as far as his central nervous system went. Yet both the doctor and the students were unable to elicit what is normally taken as a 'normal' clinical sign. The clinician was even moved to ask the patient if he in fact <u>did</u> have any trouble, such as might usually be associated with the outcome of this neurological examination. However, the possibility was not gone into in any detail, and the 'failure' in the teaching exercise was repaired by the doctor by reference to an <u>ad hoc</u> explanation. Such problems do not normally arise, however, and these educational situations with 'normal' patients usually proceed without a hitch.

<u>Time and Cool Patients</u>

In discussing the nature of 'cold' medicine at the bedside; I emphasised how it can be contrasted with the 'hot' situation that students encounted on waiting night. At this point I shall develop the

argument in terms of the passage of time in relation to students' contact with the patients on the wards - and again, consider some ways in which the maintenance of the situation may be problematic for the members concerned. When 'cold' medicine is encountered, the patient's hospital career is already under way, and his or her diagnostic identity may be firmly fixed. Yet for the purposes of the teaching exercise the passage of time must be discounted. There may be an attempt to 'put the clock back' and treat the patient as if there had been no intervening period and thus threaten the reality of the diagnostic exercise by divulging this information.

In addition to the patient's and doctors' information-state concerning the illness - the shared knowledge about the patient - there is also that fact that the nature of the patient's illness will change over time. Thus, it becomes a problem of cold medicine that, with the passage of time, the initial signs and symptoms of the presenting complaint diminish or disappear.

Patients who are admitted to the wards on waiting nights with, for example, myocardiac infarction or respiratory failure in medicine, or acute abdominal pain or urine retention in surgery, regularly display accentuated clinical signs and symptoms. The myocardiac infarction will be in pain, short of breath, cyanosed and so on. The patient with acute abdominal pain may be vomiting, display a distended abdominal region and so on. On waiting nights, the students attending the ward will see the patients' distress and the clear indications of their conditions. Yet by the time the bulk of regular ward teaching takes place, things have changed. The use of analgesics, for instance, will mean that severe pain will routinely be diminished. Similarly the acute signs and symptoms of respiratory failure, high fever, or blood

loss will have been remedied by appropriate treatment soon after admission.

> We passed on to another woman who was lying curled up in bed with a cage over her legs. Dr. Burton took his stethoscope and listened at the apex of her chest, and then got the students to do so. He commented to Jane Peters - who had been in on the previous night - that the breath sounds had changed considerably since the woman's admission on the previous day, and she agreed that there were certain differences. Dr. Burton pointed out that the patient had been on penicillin for just twelve hours, but that it was already taking effect.

Or again, during the same morning's teaching we spent some time at the bedside of an elderly male patient.

> The patient (who was himself a retired GP) recognised two of the members of the round as the houseman who had admitted him the previous night. One of them described to us that this patient's neck veins had been 'sticking out like tree trunks'. We all looked at the neck veins, but they did not appear to be distended at all.

The abatement of signs presents problems for the clinical teacher. When he comes to demonstrate a point of diagnostic observation, the signs which he wishes to show the students may well elude him altogether.

> Dr. Miller reminded us that anaemic patients often have a dry, red, swollen, tongue. He asked Miss M. to put out her tongue: it looked quite normal. 'I'm very disappointed', the doctor said, 'On Saturday she had a red, swollen tongue'.

Such contingencies may spoil the clinician's smooth production of a teaching display. Thus on one occasion, a consultant was attempting to display the elicitation of <u>nystagmus</u> - involuntary flickering movement of the eyes. Although the consultant appeared satisfied that

there was some nystagmus present it was by no means marked. In the middle of teaching on this first patient, he therefore charged off, taking the students and me with him, and took us off to another ward and a new patient. He immediately started to test the new patient's eyes, and was clearly crestfallen when this patient no longer displayed the nystagmus he had expected to see. Anticlimax was total. The reason for the disappearance of nystagmus in this case was not clear; signs and symptoms can abate spontaneously, and not as any obvious consequence of the therapy that patients have received.

e.g. After a lengthy discussion of polycythaemia - based partly on a run-through of a report of a blood-film taken from the patient, and ending with comments on possible treatment, Dr. Cowan concluded, 'Unfortunately, Mr. G's next two blood counts are bloody normal'. 'Without treatment?' one or two of the students asked. Dr. Cowan confirmed, 'Without treatment'.

Such a contingency is doubly problematic for clinical teaching. In the first place, the spontaneous remission of a sign impedes the diagnostic 'game'; but secondly, it does not even provide occasion for a demonstration and affirmation of the efficacy of approved therapy. At least in my earlier example, the consultant could side-track from diagnostic signs to the swift and beneficial action of penicillin. In the present context, even that alternative is not open.

These aspects of the accomplishment of clinical teaching clearly illustrate the divergent relevancies of therapeutic and educational work in the hospital. On the one hand, there is the physician's concern for treating the patient - effecting a cure, or at least palliation of his symptoms. On the other hand, the physician also has concerns relevant to his teaching, where his routine clinical work may be in conflict with his immediate educational objectives.

Thus the doctor's 'disappointment' over the patient's tongue, or the 'unfortunately' in the episode above can be seen as oriented to the relevance for clinical teaching. The abatement of diagnostic signs therefore presents a crucial problem in the successful production of a clinical 'mock up'. It is hard to sustain the bedside teaching session as an approximation to 'real' diagnostic work when the physical manifestations that would determine such diagnosis are missing or masked. Therapeutic success can spell educational difficulty.

The development of the patient's career and the episodic interruptions of bedside teaching periods becomes a particularly crucial feature in the teaching of surgery, and students' perceptions of that subject. In some ways, the distinction between 'hot' and 'cold' medicine becomes acute in this context. For students, the vivid drama of acute work is highlighted in the surgical admission, and the immediate involvement in the operating theatre. Waiting nights provide the main chance of students' presence at such 'hot' situations. Yet it is often the case that <u>after</u> this 'dramatic' intervention, matters go very cold indeed. For, after the operation, there may be little or nothing of the original lump or lesion for the students to see. Once it has been cut out or repaired, there is only a fresh wound to observe, and the paraphernalia of post-operative care, such as drips, drains and so on. It was an important part of students' perceptions of surgery, as against medicine, that apart from waiting nights, there was little or nothing for them to see, and thus reduced scope for undertaking diagnosis.

There is a distinction to be drawn between the trajectories of the patient career as between medical and surgical cases. Whereas in both situations the patient passes from 'hot' to 'cold, the shape of

such a passage differs. For most medical cases, signs, symptoms and so on diminish by degrees; even after intensive care, patients may go on displaying signs. For most surgical cases, the intervention of such surgery marks a sharp break in the illness trajectory. The course of the trouble is routinely charted in terms of pre- and post-operative phases, and reckoned in post-operative days. There is, in general, no such sharp division in the medical patient's hospital career. (Here I am of course concerned only with the 'in-patient' phase of the overall patient-career. For cases of both types, the admission to the hospital ward marks a sharply defined status-passage.)

An alternative way of expressing this is to point out that the students' contact with patients is typically episodic and intermittent. The bedside teaching session represents one interlude in the course of the patient's career, as it is negotiated over time. (Indeed, it is often seen as 'time out' for the patients - as a possibly entertaining session and a relief from the boredom of life on the ward).

Some patients are visited only once during their stay in hospital. One of the tasks to be done in a teaching period is to produce an account of the patient's career and the trajectory of his illness. As we have seen, there may be an attempt to discount the passage of time and to reconstitute it from the beginning - by taking a history as if the patient were being newly admitted. Yet, in addition- the relevant information may no longer be retrievable in that manner.

In the light of the problem of the abatement of signs, a further theme can be introduced. This concerns the way in which the clinician teaches by means of a retrospective appeal to his own knowledge of the patients' prior condition. This arises from two contingencies of the

passage of time. Firstly, the clinician may encounter the problem of the abatement of diagnostic clues, as I have already outlined. Alternatively, it may happen that, with repetition, the patient's telling of his own story changes. The doctor will have an understanding of the patient's illness, based on previous clinical work, and histories elicited on previous occasions. Problems are therefore created if the patient's history - part of the evidence for the doctor's formulation of the illness - now appears to be at odds with that which originally informed the diagnosis. On the one hand, changes in the patient's history may simply be a reflection of forgetfulness, as some items are now felt with less immediate impact by the sick person. They may simply 'cut corners' in presenting their history repeatedly - and, in 'tidying it up' and getting it 'off pat', they may unwittingly omit information: information which they hear as irrelevant detail, hut which the doctor and students might hear as important diagnostic indications.

Alternatively, the patient may attempt to 'improve' upon his original history - and add or subtract information in accordance with what the doctor is thought to be seeking. As Turner points out:

> Conceivably... the 'repetition' of the therapist's request for an account may be taken by patients as a rejection of accounts given to date, and as signifying that the patient has yet to adequately answer the question, 'Why are you here?'.
>
> (Turner, 1972).

If the patient, then, in the face of repeated requests for his story, should hear these requests in such a way, then he may come to doctor his own history in a search for one which will pass muster as an

adequate account. The history is repeated in terms of 'Will this do?', and in the telling of it, it is changed from occasion to occasion.

Additionally, we must also note the possibility of forms of 'deviance disavowal' as patients rewrite their medical biography. Again, as severely disabling or distressing symptoms are less in evidence, patients may come to 'normalize' their condition in retrospect. They may make light of matters such as pain, which previously they made much of, as they underplay the severity of their own problem. Such normalization may be a stratagem designed to alleviate patients' own anxieties, or to express the desire not to be 'too much trouble' to the hospital staff (cf. Davis, 1961, 1963).

For a number of reasons, then, the complaint as it now appears or as it is now described, may differ significantly from the original presentation. It is the face of such occurrences that the teaching doctor can invoke the 'in fact' clause. Discrepancies are rectified, and the possibly competing accounts - of the doctor and his patient - are shown to be an artefact of the lapse of time rather than a failure of diagnostic procedure. An instance of this occurred during a history-taking exercise with a senior house officer and an elderly male patient. The old man was very hard of hearing, and was described by the houseman as being 'not the best of historians'. I noted after this session:

> (In response to questioning from one of the students) the patient reported that he had not been having to pass water many times during the day. But Dr.May commented, 'In fact, he reported frequency during the day as well...' She also explained that he had been sick the day before he came in, although on admission he did not report vomiting.

In this instance, then, the doctor repairs the discrepancy by refence to the patient's general failing as a historian - exemplified by a further retrospective appeal to his inaccuracy concerning his nausea when he was admitted to the hospital.

The clinicians' use of appeals to what was 'in fact' the case also draws attention to a further consideration with regard to time. As time passes and the patient's hospital career develops, then - in the great majority of cases - the hospital personnel will become more certain of their diagnosis and the appropriate therapy. Tests, procedures and observation, coupled with the results of any treatment that may have been initiated, will normally rule out at least some of the possibilities entertained under an initial differential diagnosis; more specific lines of reasoning will be confirmed.

The distinction between uncertainty and certainty over diagnoses is an important dimension in the evaluation of the 'hot' medicine of waiting nights and 'cold' bedside teaching sessions. When patients are admitted in the acute phase of their illness, the clinicians may not be in a position to state a definitive diagnosis. As time goes on, and the patient's hospital career progresses, the chances are that the diagnosis will tend to become more certain, (it is not necessarily so; some conditions will go on puzzling the doctors and a definitive diagnosis may never be reached). From the students' viewpoint, we have already seen how 'hot' situations may provide occasions for a greater degree of involvement in clinical work on their part. Additionally, when we consider the pedagogical aspects, it follows that the discourse of hot medicine may be marked by a greater degree of <u>negotiation</u> between the student(s) and the teacher. The interaction may take a form which approaches more closely a 'team effort' in arriving at

differential diagnoses. These often have to be couched in terms of 'wait and see'; further decision making has to wait upon the outcome of tests and procedures, the efficacy of therapy, or further question-int of the patient. The patient's condition may be clear, in general terms (e.g., respiratory failure?, but detailed investigation of the aetiology and seriousness of the condition may have to be postponed until after the management of the initial crisis. In any event, the clinician will be unlikely to possess as full a knowledge of the 'right' answers as he will when the patient is seen in the course of a normal morning teaching round. In general, then, the development of the patient's career will be marked by a more from relative negotiability towards relative certainty. The social relationships implied by this distribution of knowledge will, correspondingly, shift from a relatively egalitarian one to one in which the distance between the teacher and the taught is emphasised. This process can be illustrated in the following field notes taken from my observations in surgery. The first extract was noted on the day the patient in question was admitted; the second was made on the day after his admission, by which time the patient had been operated on. On the first day, there was agreement in general as to the patient's condition, but some uncertainty as to its precise nature. After surgery the position, as far as the surgeons were concerned, was much clearer.

Day one.

Mr. Jackson took us into the ward, telling us he was taking us to see someone who had come in during the day. The patient was an elderly man (73), and he looked pretty ill as he lay in bed.

We all gathered round the bedside and Mr. Jackson spoke to the patient. He asked him what had made him come in to the hospital. He replied (with some difficulty)

that he had pain, indicating his abdomen. Mr. Jackson asked if he had had any trouble with his stomach previously; he said that he had had 'a lot of gas' over the previous year, and had hiccoughed a lot. The surgeon asked him if he had been taking any pills or powders for his stomach. The patient said he hadn't. Mr. Jackson asked him if he was in pain now, and the patient told us that he was. (Certainly he appeared to be in considerable discomfort, wincing and grimacing as he talked.)

Mr. Jackson then took back the nedclothes. He pointed to an old scar low on the patient's abdomen. 'Was that for a prostate?'. The patient confirmed that it was. Mr. Jackson then palpated the abdomen; the patient said it was sore and painful all over.

Mr. Jackson told the patient 'It's beginning to look as if you're going to have to have an operation',. He put back the bedclothes, and shepherded us off into the doctors' room, where there were three X-ray films displayed. As we stood around, Dr. Richards - who was already in the room - spoke to Mr. Jackson and they discussed the timing of the operations that they were going to be doing. Mr. Jackson then turned to the films and asked the students what they could see. Several of them simultaneously pointed out that there appeared to be air under the right side of the diaphragm. Mr. Jackson asked what that meant. Somebody volunteered, 'A burst duodenal ulcer', while Redmond muttered 'Ruptured viscus'. Mr. Jackson asked him to repeat what he had said; he said he'd just said 'a ruptured viscus'. Mr. Jackson agreed that it could be any ruptured organ, not necessarily the duodenum. Alan Cartwright suggested that it might be the bladder - considering that he'd had the prostactectomy; it might have become blocked again and burst. Mr. Jackson pointed out that the bladder is outside the peritoneum, and doesn't contain air anyway. Mr. Jackson asked what else it could be.

Somebody volunteered that it might be a diverticulum. Mr. Jackson agreed, and said that he would put his money on this patient having a ruptured diverticulum.

Redmond asked about the patient's pain in his left shoulder. Mr. Jackson appeared to misinterpret the question - saying that it was just derived from the irritated diaphragm. Redmond said, yes, he understood that, but queried the pain in the left shoulder when the air appeared to be under the right side. Mr. Jackson pointed to the X-ray, saying that it couldn't really be seen, but he thought that there would probably be air on the left hand side as well. He commented that he had asked the patient about the pain in his shoulder 'with the prior knowledge' of having seen the X-ray pictures.[2]

Before discussing this episode, let us go straight on to the notes I took on the following day:

Day two

(In the course of a teaching round) we went to see the patient we had seen yesterday with Mr. Jackson, Mr. McBain asked if anyone had seen this patient yesterday: of course all of them had, and some of them mumbled that they had seen him. Mr. McBain picked on Anne Ogilvy to tell us what she knew about the patient. She got all flustered and was unable to present a coherent story. Mr. McBain asked rather sharply if Anne had examined the patient's abdomen, and Redmond came to her rescue by pointing out

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2. Clearly, the patient is not a completely 'fresh' admission, and some preliminary work had been done on him. The surgeon's comment at this point emphasises once again the teaching clinician's prior knowledge as a resource in the management of bedside teaching.

that they had only seen the patient for a few minutes the previous day

....

We then went to the side room, where Mr. McBain produced X-ray films from the folder he had been carrying on the ward round.

He began by asking the students what they did when they came in on waiting nights: did they just go round at seven o'clock and then leave, or did they examine patients? He was very critical in his manner and appeared to be commenting specifically on the fact that none of them had examined the patient on the previous day. The students defended themselves. They pointed out that they did talk to patients and did examine them, but pointed out that they had only seen him briefly during the day, and in the evening he had been post-operative.

Mr. McBain then asked for comments on the X-ray pictures. Redmond - repeating his comment of yesterday - said that the air under the diaphragm suggested a ruptured viscus. 'Which viscus?' the consultant asked. 'Any viscus'. Mr. McBain was not satisfied with this reply and wanted Redmond to commit himself further.

There followed a rather confused discussion. Mr. McBain could see no reason for not believing the air to come from a ruptured peptic ulcer. The students tried to persuade him that Mr. Jackson had told them that a diverticulum was more probable, on the basis of the patient's age, and the sudden onset of the trouble.

Mr. McBain told them that it had been discovered since the operation that the patient did have a history of ulceration going back some twenty years - he had had barium meals and so on. He also said that there would not be air released from a diverticulum.

Anne Ogilvy asked why this was. He explained that it would be unlikely for a diverticulum to 'pop' - it was more likely for it to open gradually and form an abscess, which might then burst.

Mr. McBain appeared to be totally unconvinced by the students' (admittedly rather incoherent) account of Mr. Jackson's opinions of the previous day.

When I talked about what had happened subsequently, it appeared that some of the students began to have doubts about what had been said by the teaching surgeon on the first day. They too began to rewrite the patient's history, and bring the discussion into line with subsequent findings in the operating theatre.

This confusion, and the retrospective 'tidying up' of the accounts highlights the way in which patients' histories and diagnoses can undergo transformation as their hospital career progresses. What is at issue here is not simply that surgery confirms or disconfirms differantial diagnoses. What I wish to emphasise is the changing nature of the discourse and the students' position. The surgeon in the first extract used the language of betting, with the emphasis on the probabilities. On the second day, the surgeon was searching for greater certainty in the students' opinions. It must be emphasised that the students themselves were not privy to more information, although the surgeon himself was; nevertheless, their tentativeness was criticised by the surgeon from the vantage point of his own certainty. This is illustrated from the two clinicians' treatment of the suggestions offered. On day one, Mr. Jackson led the discussion from the specific to the general, as he picked up on Redmond's suggestion of a 'ruptured viscus'. On day two, the same suggestion was treated very differently; now the surgeon insisted that students

should commit themselves by plumping for specific diagnoses. Whereas, the first teaching session came off as a more collaborative venture, based upon a more egalitarian negotiation of the diagnosis, in the second, the surgeon tended to be much more dismissive of students' suggestions, which did not correspond to 'the facts of the case' as he knew them.

Seeing and Doing Things

In the fourth year, then, the students have little or no 'responsibility' for the care of patients on the wards. The talk of clinical medicine may include references to the need for responsible action on the part of a doctor or would-be doctor. In his critique of contemporary practice, Simpson characterises some aspects of this sort of orientation:

> Questions of medical responsibility are much emphasised. There is a good deal of interest in who is 'to blame' when something goes wrong with a patient. Gambits used include the far-fetched 'desert' gambit: 'If you were in the middle of the Sahara desert and your patient began to....'; the realistic 'casualty' gambit: 'The patient comes into casualty with....'; and the more sinister 'trouble' gambit: 'You can get into a lot of trouble with a patient who....'.
>
> (Simpson, 1972, p.74)

The example I presented above of the 'collapsing' consultant is an example of how such a concern may be expressed. Students are repeatedly reminded that: 'One of the things you've always got to remember is....'. They are warned of the dangers of missing important diagnostic clues. These things are dramatically and emphatically brought to students' attention. For instance, during a surgical

tutorial on "The acute abdomen', we were told:

> 'We have a little problem on the ward that is very relevant for today - an acute abdomen that was missed in _____Hospital, a very well known hospital'. (This was sarcastic, as it is a small and rather obscure hospital). 'If you miss the boat with an acute abdomen, the patient dies. And this patient is about to die'. Dr. Harrison added that this sort of thing was missed quite frequently in the first six months of the year, because of the inexperience of housemen.

Yet in terms of what the fourth year students do there is a great gulf between the life-and-death decisions that they are told about, and their own clinical activities. Except on the rare occasions of waiting nights, they take no part in formulating the initial diagnosis on patients. The students at Edinburgh are not required to do the routine ward tasks that American students refer to as 'scut-work' (cf. Simpson, 1972, p.75), such as taking blood or urine samples, as part of their fourth year training. Some - often on their own initiative - do manage to get round to 'doing things' themselves: one or two find their way to Accident and Emergency departments and there may get the opportunity to learn how to do elementary stitching.

The students appeared often to chafe at their lack of opportunity for 'doing things', or even of 'seeing things' done. There is a range of practical procedures, tests and so on that are carried out in the hospital, often as a matter of course. Many of them are simple, in that they do not require a great deal of expertise or medical knowledge. Nevertheless, the students find that they do not even see such things done, let alone have a chance to carry them out. Waiting nights sometimes provide such opportunities. The few students who do

the residential clerkships that are available also get an opportunity to do some of them - indeed it is part of their 'job' to do them. In many ways, the summer clerkship at the end of the fourth year is seen as the time when such routine skills are acquired, and the students look forward to that sustained contact with medical work in which they may be required to undertake responsibility of this sort. However, the present lack of practical involvement is sometimes irkson. One student described to me how the members of his medical clinique in his second term had complained on these lines at the end of the term, when asked to provide 'feedback' to the clinical staff.

St. We asked them to do a lot more practical procedures - teach us, you know, practical procedures. But they never seemed to get round to doing that. We told them at the end of term - you know, venepunctures and things like that - which I think people should do a lot of practice in - setting up drips and things. I think their idea was that that should be done during the clerkships in the summer. If you ask the people on the ward just now if they've done venepuncture and things, they've never done them - or just one in Physiology in the second year. Which is quite... tragic in a way, because when you get a clerkship - like I did a clerkship in (peripheral hospital) over Easter - I had to go and take bloods just like that. They say, 'Oh, you've done it, you must have done it'. You just have to do it, get on with it you know. On waiting nights they sometimes say, 'Take blood pressures'; well, blood pressure was never covered with me, I never, ever, got taught how to take blood pressure.... There's been two occasions on waiting nights when they've said, 'Take the blood pressure', and I've taken it you know.

P.A. Did you manage?

St. Why not? I can manage. I told them at the time you know, that I hadn't taken it properly before... I tried to remember what I'd read in the book.

P.A. Do you find it often happens that people expect you to have done things that you haven't done already?

St. No, because there's not many opportunities, unless you're doing a clerkship, that that happens. I mean you don't have much responsibility at all.... You stand there listening.

The same sort of criticism is levelled in surgery. Just as in the medical units, the students often find that they are not directly exposed to the normal, taken-for-granted and routine work of clinical surgery. Clinicians will take it for granted that such things have been seen or done, whilst the students complain that in fact they have not seen or done them. This was clearly illustrated in one 'peripheral' surgical unit, where the students produced a collective grumble on that score. One day I noted:

> At coffee, the clinique group started grumbling over the content of the teaching that they were receiving. Their criticisms were of two sorts. Firstly, they were concerned over what they had not been exposed to - over gaps in their experience. Secondly, they were also concerned with the reverse problem - that there were areas which were being covered too much and duplicated.
>
> The students as a group were not at all sure what to do about their grumbles. I therefore suggested that they might draw up a list of things that they would like to see and hear about, and then ask the surgeons if they could fit them in with their teaching schedule. I noted down for them a number of topics that they raised in the ensuing discussion. They were procedures and

operations that the students reckoned were routine affairs, but they were just not coming into contact with them. The list I made was:

Procedures:
- Putting up a drip
- Catheterization
- Gastroscopy and fibre-optic endoscopy
- Stitching

Common Operations:
- Piles
- Hernias
- Varicose veins
- Prostates
- Biopsies

In addition, some of them complained that they had seen only one post-mortem in the term. Somebody commented that they really should do that in Pathology; but the Pathologists assume that they get it in hospital, while the hospitals assume they get it in Pathology.

They also complained that a lot of things had been covered twice - and that everyone had done colostomies with them. Alan said he thought that there should be a list of topics that had been covered, and the doctors should tick off what they had taught on. Teachers would come in and read off a list of topics, the students would say they had been taught on all of them, but the teacher would then reply that he'd 'go over it again to make sure you know it anyway'.

These students' lack of exposure to the practical work of the wards was highlighted briefly during a tutorial which took place the next day. The tutorial was on the subject of drains - plastic tubes of various shapes and sizes which are inserted during surgery and are left in afterwards to drain off any residual blood, bile and so on. The discussion got on to the use of drains in different types of elective surgery.

The surgeon asked, 'Have you all seen caecostomies?'
The students all started to shake their heads.
....
The surgeon picked up a 'T-tube'. 'Have any of you not assisted at a gall-bladder operation and seen a T-tube used?' Four students put up their hands.
'You have, or you haven't?' he asked them.
'Haven't' they replied in unison. The others, who had not raised their hands, nodded and looked as if they were agreeing with the first four, and hadn't seen such a thing either.

The same thing happened once more on the following day. The morning's teaching began again with a tutorial in the teaching room. (The registrar who was taking the group began by saying that as there were no new surgical admissions, he thought we would do the next best thing and 'take advantage of the audio-visual facilities and run through arterial disease'. But before he got on to that, he made some comments on sterile theatre technique and post-operative infections. He was talking in particular about the special features of operations on the bowel, and he asked, 'Who's assisted at a colon operation?' This was greeted by a burst of laughter. 'Just ask who's assisted', one of the students called out.

Margaret added, 'Only two of us have assisted'.
The surgeon seemed concerned at this, 'How much longer have you got?' It was pointed out to him that there was barely a weekmleft in the term.
Mr. Lewis told the students 'You should come in when there are operations, not just tutorials'.

Margaret expostulated, 'It's a bit late to tell us that now!'
Mr. Lewis, apparently in an attempt to find out how little had in fact been done, went on to ask, 'Who's admitted patients?'

Alan volunteered, 'One'.
Margaret Alexander said, 'Mine didn't have an operation anyway!'
Mr. Lewis said, 'You should follow up patients you've admitted and assist at their operation'.
Margaret replied, 'We watched the operation, but there were three people there already'.

The students told Mr. Lewis that they had drawn up a list of things that they had felt they would like to see. Brian had made a list of the students requests, in addition to my list. Mr. Lewis said that he would see to it that this would come to peoples' attention.

On the morning after this session, the students were taken by one of the consultant surgeons. He also said that there had been no new admissions, and so he proposed to have a tutorial. He began by saying, 'I don't think anybody's talked to you about skin grafts'. But the students chorused that Mr. Gordon had already taught them about that.

Mr. Lewis therefore asked the students if there was anything they wanted to go over. Brian asked him if he had seen their list. No, he had not seen it. I offered my copy of the list from my notebook, and Brian took my notebook and expanded on the points I had jotted down. Mr. Lewis's reaction was that these were things that were done in Final Phase. But Brian said that they really wanted to <u>see</u> things - things like elective surgery. Mr. Lewis replied that this involved problems of teaching - of seeing surgery during teaching time.

Sean pointed out how much they had enjoyed the session on theatre techniques with Miss Baxter.[3] Mr. Lewis said he accepted the omission of this had been a mistake, and that next term they would do it as a matter of course, and earlier in the term.

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3. This session, with a member of the nursing staff, is described below.

Brian asked 'What about stitching?' and suggested that they could get some experience of stitching at elective surgery. Mr. Lewis said that for that he emphasis was really on casualty. 'There's no reason why you shouldn't come to casualty any time you like. Get in touch with me, and I'll tell the casualty officer to give you every opportunity to do this'.

Brian asked if next week they could see a drip put up, and a catheterization. Margaret pointed out to him that you can't catheterize on demand. Mr. Lewis wondered aloud if perhaps they could make a short film of this procedure.

Gerald commented, 'We seem to have been shown very little. The urologists talked about cystoscopy, but it wasn't until yesterday that we saw it done.

Mr. Lewis's reply was, 'I don't know how important this is. You learn very quickly when you have to'. He said that he himself had seen only one drip put up, but then had gone off to work on a ward of fifty people: then he had learned very quickly, he said.

Sean also voiced the students' complaint about a surfeit of tutorial work. Mr. Lewis said, You don't fully appreciate it - we try to cover all the main topics - you don't get much formal lectures

....

'Right', the surgeon concluded, 'Skin grafting'.

However, the invisibility of routine surgical work appeared almost immediately afterwards, in the talk on skin grafts. Mr. Lewis was talking about different types of dressing used in skin-graft technique. Several times he referred to 'soft retulle'. Sean interrupted him to ask what that was. Mr. Lewis explained that it is gauze soaked in paraffin wax and sulphonamide. 'You must have seen this used as a dressing?' The students variously shook their heads.

A national strike of hospital employees in 1973 had a profound effect on the teaching of clinical medicine and surgery. The extreme pressure on resources in the hospitals meant that the admission of cases to the wards was severely curtailed. In surgery, all cases for elective operations were postponed and, as patients were discharged from hospitals, so the wards emptied. Without new admissions, the clinicians were deprived of fresh pathology and problems to demonstrate to their students. They were thus driven to rely more heavily on alternative arrangements.

During the period of the strike I was attached to one of the 'peripheral' surgical units. The general effect of the strike was that the surgeons here were basing the bulk of their teaching on didactic tutorials in theunit's teaching room. The students on the clinique were becoming very restive at the amount of tutorial work they were doing. There was a feeling that there were alternatives to tutorials: perhaps some demonstrations of practical procedures might have been arranged.

However, there was one event that was brought about as a result of the exigencies of the strike that did find favour. One morning, after an hour's tutorial-type session, the students were told that they would be taken by Miss Baxter - the theatre sister. After our coffee one of the junior surgeons took us over to the operating theatres, and there left us with the sister.[4]

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4. As often happened, this was an unexpected and unannounced departure for me, and I had to introduce myself and explain my presence very briefly. Luckily, Miss Baxter made no objection to my presence.

Miss Baxter then took us all into one of the empty operating theatres and explained to us that she was going to demonstrate the basic techniques for preparing oneself for the operating theatre. To begin with, Miss Baxter showed us the correct way of scrubbing up. She not only explained the method, length of time that one should scrub and soaps used; she also demonstrated the correct actions - how to wash and scrub, how to rinse, how to turn the taps with the elbows, how to hold the arms upright to drain them and so on. Thus the functional requirements of sterile technique were demonstrated as to enable the students to produce a competent performance in the context of surgery.

Once Miss Baxter had finished with scrubbing, she went on to show us how to put on caps, masks and gowns. She had brought in a pile of theatre kit for the students to practise on. She began by putting on a gown herself. She showed us how to undo the gown and toss it up, passing the arms into the sleeves. She told the students to be hold in their movements in executing the manoeuvre - and if they ever dropped the gown, then simply to get themselves another one, and not make a fuss about it. When Miss Baxter had got herself into her gown, the students themselves set to practising putting on gowns and helping each other. None of them was able to reproduce what the sister had demonstrated. She good-humouredly criticised their efforts, and there was a lot of giggling as the students threw their gowns in the air and threshed about trying to get into them.

The gap between Sister's expertise and the students' novice incompetence was more sharply highlighted when it came to getting into the thin rubber gloves. Again, Miss Baxter began by showing us how it was done, how to open the sterile pack, pick out a glove and put it on

without touching the outside surface,and then put on the second flove. Needless to say, Miss Baxter made it all look, if not easy, at least straightforward. When it came to doing it themselves, the students had great difficulty as they wrestled with the gloves. The temptation to grip them in the normal way, with grubby fingers, was almost irresistable.

Again, the students were clearly excited and entertained by the challenge and novelty of surgical dressing -up. The Sister commented that she was always puzzled that medical students were not taught this sort of thing as a matter of course (as nurses are). Too often she said, Final Phase students or young doctors do not know how to prepare properly, and have to get a nurse to show them how - a nurse who was probably far too busy with her own theatre duties.

The students were enjoying themselves so much that they were reluctant to stop. Indeed, I noticed that the time was approaching one o'clock - when teaching normally stopped and the bus arrived to take us back to the University. I very deliberately looked at my watch to indicate that the time was getting on. Miss Baxter took the hint, but the students protested that they didn't want to stop (they were still wrestling with green gowns and tearing frantically at gloves) but wanted to let the bus go and carry on practising.

After this session with the Sister in the operating theatre the students spoke of it with praise and enthusiasm. Their only regret was that they had not been introduced to such instruction much earlier in the course. It was, therefore, no surprise that the clinique welcomed a second teaching session with the theatre sister. Again, we went up to the theatre area for the instruction. This time,

we were in an area outside the theatres and procedures rooms. There was a trolley there, and Miss Baxter asked for a volunteer to lie on it and play the part of the patient. It seemed selfish of me to stand and watch while one of the students or nurses was deprived of the chance to practise - so I offered myself as the victim. I pointed out that I could watch and listen from a horizontal position just as well as if I were standing up - in fact I could do it rather more comfortably.

Rather in the same way as throwing up the theatre gowns, Miss Baxter showed the students how to lift the drapes and let them fall in one action that did not require fussy rearrangements. Also in the same way the students generally failed to reproduce the Sister's decisive movement in laying the drapes.

As the medical students and trainee nurses set about their task I was quickly covered and enveloped in green theatre drapes. Indeed, my observation was curtailed when Sister Baxter demonstrated how to drape for a thyroid operation - covering my face and head entirely.

My impression at that time was very similar to that I formed on the earlier session. Primarily, I had the sense of 'behind the scenes' coaching of the students. Before, we had had a glimpse inside the dressing-room. Now we were being introduced to the mechanism of setting the scene. Sister Baxter gave the students - and her nurses - simple advice on appropriate actions during the conduct of operations.

Two things were stressed by the Sister. In the first place, emphasised that her teaching of these matters was rather out of the

way - that these topics were nor normally the subject of explicit instruction to medical students, but normally left for the students to 'pick up' for themselves. Secondly, Miss Baxter repeatedly referred to the 'one-up-manship' which could be imparted by such training. In particular, she said that the basic advice she was giving on assisting at operations would help them impress the consultants with their confidence and efficacy, when they first came to do it at a real operation. As with the first teaching session on sterile techniques, this second period was very well received by the students. They were greatly impressed by the quality and enthusiasm of the theatre sister's instruction. Also, the teaching had been a glimpse behind the scenes for them - a glimpse that helped to make sense of the technique and ritual of life in the operating theatre that they saw from time to time.

However, the strangeness and the outstanding success of this innovation serves to underline how rare it is for students to be so initiated into matters of this sort. They are rarely granted such a glimpse 'behind the scenes', whereby they might gain some insight into the routine work of the clinical unit, and a sense of participation in its day-to-day life.

There is therefore something og a paradox in the conduct of fourth-year clinical instruction. The implicit, hidden curriculum of the clinical phase appears to the students to imply a degree of involvement in the work and routine of medical work. It appears to involve them in participation 'where the action is'. Yet although they do gain some glimpses of 'hot' clinical situations, they find that the bulk of their experience is gained in the context of 'cold' medicine. Their early work is concentrated on the basics of history-taking, physical examination, diagnosis. They have little opportunity

to participate in the day-today management of patients on the wards. They therefore rarely see the performance of even common clinical procedures, such as comprise much of the normal work of junior hospital doctors.

This paradox is sharply accentuated in surgery. This specialty appears to the students as pre-eminently one of activity. As was discussed earlier, they contrast surgery with the more intellectual work of medicine. Yet the students cannot engage in the activity that is distinctive of surgery. They find themselves only occasional observers of surgeons in the operating theatres. They also find less scope in surgery for the application of their own clinical skills of inquiry and diagnosis. Whilst students have little opportunity to 'do things' and 'see things done' in both specialties, their divorce from the work of the ward is particularly apparent on their surgical attachments.

3.5 : The Distribution of Knowledge at the Bedside.

Well-informed Patients

In an earlier section I outlined some problems associated with teaching on patients who are not informed of the nature of their illness, and whom the doctors may wish to keep in a state of relative ignorance. It is patients of this sort who have been considered primarily by sociologists of medicine. However, information control of this sort by no means exhausts the possibilities. Of particular importance when considering clinical teaching are patients who are (at least partially) aware of the nature of their illness. Many patients have control over a vital resource - that is, a degree of knowledge of their own history, the diagnosis that had been applied to their trouble, and the treatment prescribed.

The majority of patients produce lay accounts of the problem which originally led them to seek medical help. Such lay accounts are elicited by the doctor when he takes a history. Personal experience and recollection may be supplemented with information from a number of sources. This is illustrated appositely from one case taken from my field notes. They were written while I accompanied a male student 'clerking' a patient - an obese woman approaching middle age. In the course of his history taking I noted the following sequences:

Pt. I pass too little water - compared with other people that is... they give you a 24 hour collection and you notice that there's nothing there compared with other people.

St. What are the water-tablets you take?

Pt. Lasex

....

St. What medicines were you on before you came into hospital?

Pt. Lasex and Ponderax. The chemist told me they were the most expensive pills around.

....

The student asked if there was anything else in her previous history. The patient replied that she had been 'in surgical - I had a lipoma on the chest'.

The student asked the patient about her obstetrical history - 'Were they delivered normally? You weren't cut open?'

Patient: No it wasn't a caesarean.

....

St. Any diabetes?

Pt. No, not according to the tests - they've found <u>something</u> now - I'll not tell you.

St. I'll look it up in the files.

Pt. That's no good - they don't know what it is. I was going home on Saturday.

From this simple sequence of student-patient interactions we can identify a number of possible sources of information which go together to form her history. They are: observation and comparison with other patients; interaction with the pharmacist; her previous hospital visits; her previous interactions with clinicians in the course of her present hospital stay. Thus from her previous visit she can refer to her <u>lipoma</u> and from her current visit admission she can herself report on the negative results of tests for <u>diabetes mellitus</u>. Although she cannot offer the student any definitive results, she can alert him to the fact that further tests have been undertaken and their results noted by the clinician.

Clearly, the range of knowledge available to the patient, the detail, the degree to which it is warrantable by reference to medical opinion and theory - these will all differ from individual to individual. Yet we can begin by sketching in some of the relevant features which are implicated in the process of sharing and gaining medical information.

An example of a patient's understanding which stemmed from a long medical history and a close relationship with the medical profession is provided below:

> At 11.15 Dr. Lewis came in to take us to a patient. She took the whole group (12 students and myself) to the women's ward....
>
> We all gathered round a patient's bedside, and Dr. Lewis asked one of the men to begin taking the history. ....
>
> The student began by asking the patient what had brought her into hospital, and Dr. Lewis broke in to tell him that it was not the present complaint that was of interest. The student therefore asked the patient to tell him about her medical history. (It was largely inaudible to all but those immediately by the patient's head, and I could see those at the back of the group craning their necks and straining to distinguish what was going on. All I could catch at this stage was that the patient had suffered a haemorrhage after the birth of her daughter).
>
> After a minute or two Dr. Lewis asked the first student to summarise the history, and suggested that a diagnosis was possible at this stage.
>
> The student summarised his findings - including the original haemorrhage, a history of sluggishness, and poor tolerance of cold. When the student

mentioned that Mrs. G. had had poor tolerance of cold weather, Dr. Lewis butted in and asked 'Did she tell you that?' 'Yes', he replied. Dr. Lewis turned to the patient and said that she mustn't 'give anything away'. Mrs. G. agreed not to, with a cheerful, rather conspiratorial expression.

The student stated that he thought that the patient had Simmond's disease, and this was confirmed by Dr. Lewis. From then on, Dr. Lewis conducted the group session almost entirely alone, with some participation from the patient, and just one or two contributions from individual students.

Dr. Lewis told the group that the patient had a long history, and that she had first seen her when she herself was an S.H.O. She described to the students how rudimentary treatment was when at the time she first saw Mrs. G. Dr. Lewis said that Mrs. G. was one of the 'Edinburgh collection' suffering from Simmonds disease with various degrees of severity.

The patient herself commented on her comatose condition in cold weather, and referred to it as her 'hibernating'. Dr. Lewis seized on this image as a particularly apt one to describe a common characteristic among sufferers from Simmond's disease.

Dr. Lewis went on to comment on the behaviour of those with the disease, and told the students about another patient she had seen in the past, who had also suffered from Simmond's disease. This woman had tended to behave 'a bit oddly'; the family had thought that she was mentally ill, and the GP had rather supported this view.

Dr. Lewis talked about the possible treatment of the disease and asked the students how they would set about it. One of the students suggested hormone therapy, and Dr. Lewis said at one time they had

treated Mrs. G. with doses of ACTH. At the time it had been very difficult to estimate dosages with any accuracy, and the treatment had been very difficult and uncertain. At this point the doctor and her patient engaged in a private reminiscence about their early treatment and its tribulations. The patient exclaimed that, despite all the difficulties, 'Oh, it was worth it ... it made such a difference!'

As Dr. Lewis was leading up to the discussion of the ACTH therapy, the patient kept looking up at her, smiling and winking. I got the impression that they were sharing a more or less private joke about the vicissitudes of that treatment and its hazards.

The interaction between Dr. Lewis and her patient was, throughout the half-hour or so that we were at the bedside, very much a private relationship, going on with shared memories. The students took very little part in these proceedings.

The patient's own career spanned a number of years, and had developed in parallel with the doctor's professional career; she had been in on the early developments of hormone therapy, and could trace its subsequent implementation from her personal experience. She had enjoyed a status which closely paralleled that described by Fox (1959). Thus the dynamics of the teaching session were affected by the closely cooperative relationship that had grown up between doctor and patient over a number of years. Having gone through her own 'experiment perilous', she had become extremely well-informed on Simmond's disease - its aetiology, symptoms and treatment. She appeared to take considerable pride in her position as a 'well-informed patient' and her privileged status as a long-standing

'guinea pig' who had participated in the Edinburgh work on hypopituitarism.

On more than one occasion, the knowledge possessed by 'well-informed patients' outstripped that of the fourth year students themselves.

e.g. The patient was a man in his 50's - with white hair, which was still thick on his head - a Mr. O'Brien.

....

Dr. Rosen took a short history from Mr. O'Brien, and then asked the students in turn to ask further questions to amplify the brief account.

....

In the course of recounting his history, Mr. O'Brien told us that he had had 'a partial gastrectomy' some 30 years ago - which, as Dr. Rosen pointed out, was 'as clear and full a piece of information one could ask of a patient'.

....

Whilst Dr. Rosen and the students were inquiring into the patient's family history, we were told by Mr. O'Brien that his father had had <u>lymphademoma</u>. Dr. Rosen asked if anybody knew what that was, adding that they probably hadn't come across it yet. In fact, he said, it was 'the proper name for Hodgkin's disease', when none of the students volunteered a reply.

Again, the patient appeared to gain great personal satisfaction from his precise knowledge of the relevant medical terminology and the accuracy of his history-giving.

Such superior knowledge and mastery of technical vocabulary on the part of patients may threaten the students with a loss of face. It may be felt to undermine their position as medical men and women.

Just as it was a great talking point whether patients had called a student 'doctor' or not, this self perception of 'young doctor' could be a precarious one. Sustained by the student's successful production of appropriate demeanour and expertise, it can be undermined by a failure of medical understanding on their part.

On one occasion on my first medical unit, two of the male students were sent down to a metabolic unit, as the wards had run out of patients who had not already been seen by the students. In the metabolic unit they found a woman who presented them with a long and complete history of troubles and ill-health. She did not produce a coherent history, but was able to recount a wide range of past diagnoses and treatments :

e.g. St. Any indigestion?

Pt. I had a gastric ulcer for sixteen years, but its healed now - I can eat anything for the last three years.

....

Pt. I had my veins done ....

....

Pt. They called it oedema in my hands, face and legs ....

....

Pt. I was in with PFR twelve or thirteen years ago ....

The students floundered along with the history, without following up any of the pieces of information that the patient told them. As they were beginning a physical examination, one of the registrars came to check on their progress, and took them off to another room. After he had checked on what they had been doing, what they thought might be wrong and so on, one of the students asked the doctor what 'PFR' stood for. The registrar told them it referred to

an operation for the repair of a prolapse. Neither of the two students had asked the patient what she meant by 'PFR', nor had they attempted to investigate this part of her history further. Unwilling to expose their lack of familiarity with the term, they had let it pass, and waited to question one of the teaching staff.

Insofar as the patient's fluency with medical terminology and information can threaten the students' position, they may be led to discount the patient's competence. Patients were sometimes implicitly accused of using such medical vocabulary without necessarily understanding it. For example, during the early weeks of the year, the students I was with practised taking psychiatric and social histories from patients in the general medical wards. Having done so, they then presented their case histories to the rest of the clinique and a lecturer in psychiatry. In presenting a report on 'their' patient, two of the students repeated sections of her history <u>verbatim.</u> It appeared that she was using a wide range of semi-technical and medical vocabulary. The psychiatrist brought this to the students' attention as a possibly significant feature of the patient's general attitude:

> The lecturer suggested that Mrs. J. liked to be very informed on the use of medical terms - she had been able to name the drugs she had been on, had used terms like 'debility' and so on. Doug Ewart replied, 'I wouldn't say she was <u>informed</u>, but she liked to use the words'.

Here the lecturer appeared more willing to credit the patient with a degree of well-informedness. Indeed he appeared to be willing to make it the basis for further exploration of the patient's illness behaviour. The students on the other hand, seemed less willing to credit the patient with any genuinely useful information. On the

basis of the history as the students presented it, there were no external criteria to judge whether the patient was presenting the information accurately. The doctor was willing to give her the benefit of the doubt, the students were not.

Under-estimating the level of information available to patients is not a perspective confined to medical students. Pratt et al., (1957) surveyed clinic patients on their understanding of disease-related terminology; they also surveyed the clinic physicians as to the amount of knowledge that laymen should possess, and how much they thought the patients actually did possess. The authors conclude that on the whole the patients were ill-informed about their conditions, and about ten other common diseases. On the other hand the physicians were not consistently able to predict the level of information among patients. 'The direction of their error was rather consistently to underestimate patients' knowledge, despite the low level of knowledge among patients'.

Further studies of this sort have concentrated on patient's levels of knowledge only. Two areas have been studied - the meanings of clinical terms and knowledge of gross anatomy. In both areas concern has largely been focussed on the relative levels of misunderstanding among patient populations. It has for example, been shown that there is often a high percentage of patients whose comprehension of medical terms is at variance with the meaning normally attributed by most, if not all, doctors sampled. (e.g. Tring and Hayes-Allen, 1973; Meares, 1960; Samora et al., 1961; Boyle, 1970; Hawkes, 1974; Seligman et al., 1957).

There are a number of points to be made in contrasting this

area of research findings with my own well-informed patients. Firstly, these surveys are all based on research procedures which take the terms out of context. Patients are given lists of terms and asked to choose the most appropriate meaning for each from a batch of fixed alternatives. It seems likely that, in context, a higher proportion of such terms would be understood adequately. More specifically, such tests are not generally geared to the patient's own complaint. Again, it seems likely that greater understanding would be shown of terminology directly related to the presenting problem (a view supported by Romano, 1941).

Secondly, such studies tend to stress the element of <u>mis</u>-understanding. They provide a degree of confirmation for the esoteric nature of the professional mysteries. The gulf between the clinician and his client is reaffirmed. While they may provide 'food for thought' for the concerned practitioner, the orientation of such studies is towards the lack of competence on the part of the lay public. On the other hand, the results can be 'stood on their head'. They suggest that there are a fair number of patients who are good at handling basic terms of clinical medicine. Further, in describing some hospital patients as 'well-informed' I am not necessarily implying a high degree of understanding on their part. I am drawing attention to the fact that they may have their diagnosis and therapy 'off pat' and be able to reproduce it to order. This does not necessarily imply that they would be able to explain it any further if called upon to do so.

In comparison with the general lay population or patients visiting clinics, the patients in a teaching hospital who cooperate in the teaching of clinical subjects are in a better position to develop a well-informed perspective on their illness. Patients who

have come to be defined as 'interesting' cases for the purposes of instruction may be visited by doctors and students on numerous occasions. They are not only required to reproduce their history time after time but may also listen to bedside discussions of their condition. Such instructional discussion provides a good opportunity for patients to glean knowledge of their own case.

Patients as legitimators and coaches

I have already described how the patients may be seen by students as threatening their display of medical competence. If well informed patients appear to know more than the students themselves, then it becomes difficult for the students to sustain a convincing performance as legitimate medical people. Their novitiate status and relative ignorance will be 'shown up' by the patients. By the same token patients can legitimate students' performances. Not only can patients provide students with a general legitimation of their role as doctors in the making. From a position of relative well informedness the patients can provide more detailed legitimation of students' performance of their work. (That is, quite irrespective of whether they see them as 'students' or 'doctors', the patients can openly acknowledge the successful accomplishment of clinical tasks). Given the patient's position as a cooperating team member in sustaining the reality of the bedside session, they may be in a position to comment on the teaching session and the members' competence.

In one session I observed the students were examining a middle-aged woman. They had been informed explicitly by the consultant that they were to examine 'these neurological legs'. There was thus no question of secrecy vis-avis the patient, and the patient appeared to be well aware of her condition. As the examination progressed, one

of the students tried to elicit clonus, but was unable to do so. The consultant then demonstrated his own technique, and successfully elicited the sign. The student tried again, using the consultant's method - he produced clonus for himself this time, and the patient, nodding and smiling announced to the world at large, 'He's got it!'

Or again:

> Cons. You asked him (an elderly male patient) about his eyes ...you asked a very general question and got an answer about visual acuity ... but there's one thing you must ask...
>
> St. (to patient) Did you ever get double vision?
>
> Pt. No... turns to consultant ... was that the question?
>
> Cons. Yes.
>
> The patient turns back to the student, grins and makes a thumbs-up sign to him.

In addition to such unsolicited, spontaneous interventions from the patient, it also remains possible for the teaching clinician to acknowledge the position of the patient, and to use him or her to evaluate a student's examination or diagnosis. This strategy can be seen at work in the course of the following extract from my field notes. I reproduce it quite fully as it also demonstrates a clear case of a patient with a fairly full and detailed knowledge of her own (complex) medical history.

> Dr. Rosen asked what had originally been wrong with the patient. She replied, 'I had a gall bladder'.
>
> Dr. Rosen replied good humouredly, 'We all have a gall bladder'.
>
> Mrs. B. corrected herself, 'I had a gall bladder removed I mean'.
>
> ....

Dr. Rosen continued, 'Was this operation a success or not?'

'Just before the end of the operation I passed out, and that was me out for three days.'

Dr. Rosen explained, 'As I understand it from reading the notes, she went into deep shock and needed resuscitation for three days'.

There then followed a lengthy technical discussion between the physician and the students on the possible causes of the patient's collapse. This was followed by a discussion of the biochemistry of the patient's present disorder. Dr. Rosen asked, 'What disease is that?'

A student replied, 'Addison's disease'.

Dr. Rosen turned to the patient, 'Is that right?'
'That's right', the patient confirmed.

Dr. Rosen asked Mrs. W. 'Would you like to tell them what you had then and have been taking since?'

'Cortisone, thirty-seven and a half a day, and ...'

Dr. Rosen interrupted and stopped her saying any more about the details of the therapy, saying he would go into that later.

....

Dr. Rosen went out of the ward for a minute or two, and the students chatted to the patient. One of them asked her if she had two specific symptoms of Addison's disease. She told them that she had not. 'That is what is so puzzling about me - I haven't got all the right things, or they're all upside down... I'm sorry I've landed you with all this'.
'It's all part of our education', said Tim Watson.

In terms of her knowledge of her previous history and therapy this patient comes over as very well informed indeed. In fact, given the 'puzzling' nature of her case, she appeared to know almost as much about it as her doctors did - or at least as much as they could

be sure of. As the doctor himself indicated, her previous history is not clear, and again, she seems to know as much about it as can be seen from the official record of her previous operation in the case notes available. It seems therefore entirely in keeping with the picture of the distribution of knowledge that emerges here that the consultant in charge should explicitly turn to this patient and invite her to act as adjudicator of the student's diagnosis of her condition - something which is normally done only by the doctor.

In a similar way the patients, as participants in the teaching situation, may be in a position to 'clue in' the students. They may be able to coach the students in their clinical performances. They can indicate what it is that 'the doctors normally do', and direct the students towards relevant clinical approaches. Hitherto I have discussed patients' cooperation in sustaining the bedside situation in terms of their acquiescing to a more passive role: in supporting 'cold' medicine, the patients are normally required to act in a 'passive' way - their cooperation lies in <u>not</u> intervening to provide clues to the student. However, from their vantage point of 'inside knowledge' the patients can intervene in a more active way to direct the students' endeavours.

This can be illustrated in the following field note extracts, where patients concerned volunteer information to the student in an attempt to establish a successful encounter with them.

> I followed John up to the female ward... and joined him at the bedside of a woman, who was sitting in her armchair, wrapped in a dressing gown. She looked slightly exasperated as we walked through the curtains. John stopped and looked through

his notebook. 'I must make sure which eye I'm supposed to be looking in'. The patient, with an air of exasperation, replied, 'It's my right eye. I thought all this was finished'.

Edwards and Bell both looked at Mrs. C's eyes. 'They normally do that with the light thing', she told them. (Presumably referring to an ophthalmoscope).

The place of the well-informed patient has been previously noted particularly in the context of clinical examinations. This has been noted both in educational research and fiction. This in Richard Gordon's (1952) account of undergraduate medical life:

> 'Good morning', I said with a professional smile.
> 'Good morning', she returned brightly.
> "Would you mind telling me your name?' I asked politely.
> 'Certainly. Molly Ditton. "im unmarried, aged twenty-two, and my work is shorthand typing, which I have been doing for four years. I live in Ilford and have never been abroad'.
>
> My heart glowed: she knew the form.
>
> 'How long have you been coming up here?' I asked.
> 'You seem to know all the answers'.
>
> She laughed, 'Oh, years and years. I bet I know more about myself than you do'.
>
> Just the thing! There is a golden rule for clinical examinations - ask the patient. They attend the examination for so many years and hear themselves discussed so often with the candidates they have the medical terms off pat. All I had to do was play my cards correctly. I talked to her about Ilford, and the wonderful advantages of living there; of shorthand-typing and the effects on the fingernails; of her boy friend and her

prospects of matrimony (this produced a few giggles); of the weather and where she went for her holidays.

'By the way,' I said with careful casualness, 'what's wrong with you?'

'Oh, I've mitral stenosis due to rheumatic fever, but I'm perfectly well compensated and I've a favourable prognosis. Ther's a presystolic murmur at the apex, but the aortic area is clear and there are no creps at the bases. By the way, my thyroid is slightly enlarged, they like you to notice that. I'm not fibrilating and I'm having no treatment'.

'Thank you very much', I said.

The tubby man was delighted when I passed on to him the patient's accurate diagnosis as my own.

(p.178-179).

The same phenomenon has been noted in a rather more serious vein by Stokes (1974) writing on 'the clinical examination',

> ... there is also a need to look more closely at the type of patient who is pressed into service for the examination. Too often there have been 'professionals' who have made themselves available to hard-pressed registrars entrusted with the organisation of the examination. Considering the central role they play, their financial remuneration is, in general, paltry, so they cannot do it for the money; it is probably the power which attracts them, the opportunity to suppress a vital piece of history, occlude a physical sign and so influence a candidate's change of passing; this may occur at a subconscious level and the most chronic professional patients like to constitute themselves as assistant examiners (some of them have become quite skilled).
>
> (Stokes, 1974, p. 24-25).

A number of the patients that students see, then, are well informed and they have control over important resources in the teaching situation. Likewise the chances are that the doctor will also have knowledge of what has already been done to the patient. These are provided for by the fact of 'cold' medicine and the 'mock-up' routine of the nature of the bedside teaching exercise. But if that exercise is to come off successfully then it must pass as simulating 'hot' medicine. Despite the fact that the diagnosis and therapy may already have been undertaken the student's practice should proceed as if this were not the case. Thus in producing the distinctive status of the reality - like bedside teaching session such previously accumulated knowledge must be managed with a degree of care. If the patient should blurt out the diagnosis applied to his trouble, then the reality-like features of the exercise will be largely nullified.

It is therefore a concern in the construction of such encounters that patients and doctors should be engaged in monitoring the flow of information. They need to attend to what may be told and when. This concern can be illustrated by the following field-note extracts.

> The students had been told to examine the patient's precordium, one by one. As the first student began, the registrar came back and poked his head through the curtains to see if everything was O.K.
>
> Pt. 'Doctor, do I tell them what's wrong?'
>
> Dr. 'Under no circumstances... If they ask you what's wrong, ask them their names and I'll come back and find out who they are'.
>
> Pt. It's just that the other day I was told not to tell them, but I slipped....'.

A girl student was exploring whether the patient (an elderly lady) had any signs or anaemia. As she was examining her eyes, the inside of her mouth, the creases in her palms, etc., the old lady chipped in 'I've had a blood transfusion since I came in... '.
The doctor interrupted, 'Don't tell them too much ... you're giving the whole show away ... giving away the whole shooting match!'
The old lady clapped a hand to her mouth.

These two extracts clearly illustrate how patients and doctors can jointly engage in monitoring and controlling the transmission of knowledge between themselves and the students. Such a joint production serves to ensure that the students' diagnostic work should adequately parallel the processes of 'real' medicine. The encounter is treated in such a way as to reproduce the ways in which the inquiry should proceed - as if the diagnosis had not in fact already been done. In this way 'cold' medicine can be done in such a way as to mimic the nature of 'hot' medical work.

The following fieldnote extract also illustrates this point. It shows clearly how the consultant can set about controlling the use of previously acquired information. In this instance, the doctor established a 'meta-game', which provided the rationale for following the rules of cold medicine teaching. Jokingly, he provided a setting for an interaction in which the patient's own resources of information could be held in abeyance.

> The consultant began the teaching session by telling the students, 'Imagine that Mr. ____ is an Eskimo, who's deaf and dumb and mentally deficient...; in other words they were not to take a history, but were to proceed straight to a physical examination. As the various students took the patient's pulse, examined

him for sacral oedema, tested his eye movements, examined his thyroid, etc., the consultant commented to the patient that he was 'doing fine', and that he was using him as a 'male model'.

The consultant then asked one of the students to examine the patient's precordium. When the student opened the patient's pyjama jacket, he exposed an old operation scar on the left side of the man's chest.

Pt. 'Do I tell them about that?'

Cons. 'No... as far as they're concerned that's a shark's tooth that tore you apart...'.

In this extract we can detect some of the features of the distribution of knowledge. Hitherto in the session (which I have severely edited) the knowledge and information which was being used in the teaching session had been entirely the prerogative of the consultant. Now, as his scar was exposed, the patient's personal knowledge was brought into play, and his ability to divulge or keep back this information became a crucial resource in the teaching interaction. The consultant brought the patient back into line by reaffirming his fictional role and so re-established his 'conspiracy of silence' with the patient.

The following extract also exemplifies how physicians may orient their teaching practices to the possibility of the patient divulging the diagnosis to the students before the students themselves have gone through the history and attempted their own differential diagnosis.

> The first patient that Dr. Porter took us to see was a lady in her seventies.... Dr. Porter asked her if we could look at her tummy. Shepulled up her night-dress to reveal a band of sore places round her midriff.

Dr. Porter asked Bell, 'What do you think that is?', and turning to the patient added, 'Don't tell them what it is?' Bell looked at her in silence for some moments, then said, 'She might as well tell me what it is....'

Dr. Porter hinted, 'Remember - the accent is on neurology'.

'Herpes zoster', volunteered one of the other students.
'Herpes zoster', repeated Dr. Porter approvingly.

It must also be emphasised that under conditions of 'cold' medicine, the teaching doctor will normally be well-informed about the patient. He himself will have seen the patient before, or will have access to the accumulated knowledge about the patient, through discussion with his colleagues, clinical conferences, and the folder of case-notes. By virtue of such resources he can guide the students' history-taking and diagnoses - and guide the patient as well, if need be. This aspect of the teaching situation can be demonstrated from the following transcript excerpt. One of the students had been told to take a history from the patient. After a few minutes of question and answer between him and the patient, the consultant broke in:

> 'Okay, fair enough. Now I would like you, in turn, to ask relevant questions - one question each - trying to get further into his history. And I think it is only fair to say that so far you have not elicited all the main symptoms. What other questions are you going to ask?'

Here we can see how the previously accomplished diagnostic work informs these comments. The consultant's advice that there is still a symptom to be drawn from the patient implies that there is some already established list of symptoms. This is available as a topic for the physician by virtue of the fact that he himself has already taken a history, or has a history available in the folder of case

notes. Here the consultant's guiding hand was needed further, as the students' history taking continued. Despite the fact that the consultant had offered his intervention, that elusive further symptom was not forthcoming. The consultant therefore turned to prompting the patient :

St. 'Is there anything else that you feel - symptoms that you get with the pain?'

Pt. 'No, its just the pain I feel. That's all, nothing else'.

Cons. 'Is that actually strictly true? You know, is there anything - I think the question really is - is there anything which is happening recently?'

Pt. 'Well, apart from the pain I seem to have been drinking, lots of water, milk, things like that. Because of this, I seem to go to the toilet a lot more than I used to ...'.

Here the physician orients the patient to the possibility that there may be another symptom - that there is additional information that they are both aware of. The consultant now indicates that this item of information may now be legitimately divulged by the patient to the students. Again, his ability to do so rests on the 'cold' nature of the teaching exercise. The doctor can ovecome the patient's lack of forth-comingness because he is well aware of this symptom <u>and</u> he knows how it can be elicited. He reformulates the student's question in such a way that it will elicit the symptom that he is hoping will be elicited. He does this by introducing the notion that things that have been happening to the patient <u>recently</u> are what is really at stake (whereas the student's own question gave no indication of recent symptoms - indeed, it could not possess the necessary knowledge needed to formulate it in this way).

What we have seen in the above extracts, and in the previous discussion of well-informed patients shows how the teaching clinician can manage the situation. By virtue of his knowledge of the patient and his illness, he can 'orchestrate' the flow of information between the patient and his students. He can help to create the 'reality-like' features of the academic exercise by ensuring that knowledge is suppressed when necessary; he can also create the opportunities for information to be divulged when it is appropriate. He is engaged in 'meta-communication' - that is, talk-about-talk. Stubbs (1975) has argued that meta-communication is a particularly important feature of teachers' talk. Teachers are constantly engaged in monitoring who can talk, for how long, to whom and about what (and in schools, the level of noise). In the case of the teacher at the bedside, he is engaged in talking about the talk of the other parties. He too is concerned to monitor who is talking (patient or student; which of the students) and the content of their talk. His meta-communication is oriented towards ensuring the orderly exchange of information between the other two parties in the course of the triadic interaction at the bedside.

Here again the patient in the next extract from my notes, begins to give 'the game' away, as he starts to divulge to the students a crucial piece of information that the consultant apparently wants to save until later in the interaction. The patient in question was an elderly man whom the students were questioning in connection with what appeared to be symptoms of neurological impairment.

> Dennis continued, 'Do you ever have ringing in the ears?'. Dr. Porter looked approvingly at him. The patient replied, 'No, but when the doctors use what I'd call a tuning fork...'. Dr. Porter broke in, "You're giving away all the trade secrets',

What the patient was referring to was indeed a tuning fork, which is normally used in neurology to test for patients' sense of vibration. It is struck and placed on some bony part of the body (e.g. the ankle bone). Later in the same situation, the physician was getting the students to say what they would want to test the patient for, and to perform these neurological tests.

> Dr. Porter asked 'What else?' There was a period of silence, as none of the students volunteered a reply. Finally he reached behind the head of the bed and produced a large tuning fork. 'Vibration' chorused some of the students.

If we return to the nature of 'cold' medicine, we can begin to amplify the material I have just discussed. 'Cold' medicine is an opportunity for the students to practise the techniques of clinical method. Although both the patient and the doctor may know the nature of the patient's illness, such knowledge has to be set aside for the purposes of the teaching exercise. By acting 'as if' previous clinical work had not been done, and knowledge not accumulated, the members of the clinique, the doctor and the patient, can re-enact a scene which displays features of 'hot' medicine. The teaching session can be conducted by the clinician in charge in such a way as to parallel the routine of history-taking etc., as it is done on 'fresh' patients in the acute phase of their conditions. Thus, although the patient may be aware of the nature of his illness, or of critical features of his hospital career, the successful accomplishment of the situation demands that the shared knowledge enjoyed by the patient and the doctor should be temporarily suppressed, until it is methodically uncovered by the students in the course of their investigations.

The Doctor's Prior Knowledge

The doctor's prior knowledge of the patient's condition means that he is often in a position to produce displays of skill and competence in clinical technique. That is, over and above the fact that the doctors enjoy superior expertise in general, they also have a particular advantage in relation to the patient they are teaching on. If they already know what they may expect to find - especially when performing a physical examination - then they are in an advantageous position to bring off an impressive display of clinical acumen and skill. This is particularly so if they have previously examined the patient and then can simply rehearse what has been done already, and can 'work back' from the predicted result. This is, I think, illustrated in the following extracts of field notes, which were taken from the same teaching session (in medicine). The students involved were examining an old man who had given them a history of dizziness, loss of balance and double vision; they were performing a series of tests on the central nervous system.

> Dr. Porter asked the students what further tests can be used for proprioception. Grant suggested the Romberg test. Dr. Porter asked him to describe it. Grant described how one gets the patient to stand upright, with the eyes shut; they lose their balance, he explained, as they are normally using visual stimuli to maintain their balance. Dr. Porter asked how one might reproduce the Romberg test in the upper limbs. Jackson suggested getting the patient to touch the tip of his nose with his eyes shut. Dr. Porter pointed out that the Romberg test does not involve movement. He himself (as no further suggestions were forthcoming) asked Mr. F. to hold his arms straight out in front of him and

> shut his eyes. The patient did so, and Dr. Porter exhorted him to 'Keep them there...keep them there...', but gradually his left hand started to waver, and though his right hand remained steady, the left hand slowly drooped. Dr. Porter looked round triumphantly, 'I'd like a round of applause for that!'

Later in the same encounter:

> Dr. Porter then tested for the possibility of the patient ignoring one side of his body. The doctor got him to close his eyes and say which arm he was touched, the patient successfully identified which one it was, but when both arms were touched simultaneously, he only reported feeling his <u>right</u> arm being touched. 'I trust you're all impressed', commented Dr. Porter.

Here the doctor had taken the initiative in conducting the examination. The students, despite questioning from the doctor had not suggested the best and most appropriate tests of neurological functioning. Hence, the consultant had had to introduce and so the tests off his own bat. His tests were totally successful - quite 'dramatically' so (cf. his call for applause). Although he would probably have performed these tests anyway, given his neurological expertise, on the basis of the history as presented, the success of his demonstration was pretty well guaranteed for him by virtue of the previous work that he and his colleagues had performed with this particular patient.

The clinical tests for neurological functioning lend themselves particularly to such 'dramatic' performances. The patient who involuntarily acts out the signs of his impairment appears as the physician's unwitting 'stooge' in his demonstration of clinical expertise. In the course of one neurology session I noted that the

consultant referred several times to his getting the patient to do her 'party tricks', and spoke of his having 'trained' her to do them properly (which is itself a further acknowledgement of the clinical teacher's previously acquired information). However, although the doctor is in this advantageous position to adopt such a thaumaturgical approach, this does not necessarily mean that he will always be able to bring them off successfully. The doctors' performances occasionally fell very flat indeed, if the patient failed to respond as predicted.

> Dr. Fowler began to speak to the patient, and told us to watch her closely. (The patient - an old lady - was fairly drowsy and didn't appear to be altogether 'with it'). As he spoke to the patient, he gestured to Heather Muir to sidle right up to the end of the bed - so that she was next to the patient's head - to her left.
>
> Dr. Fowler spoke to the patient briefly, telling her that he had brought some 'young doctors' to see her. When he had finished speaking, the physician nodded to Heather Muir as a sign for her to start speaking herself. Heather did so, and as she did, the patient turned her head to the left to look at her. Dr. Fowler laughed, and apologised that this hadn't worked. He explained that he had not been expecting the patient to react to anything on her left.

The subsequent development of this teaching session went on to show that the diagnosis implied by the consultant's little trick was substantiated. But the point is that he had been able to plan the performance in the first place on the basis of his prior knowledge of the diagnosis - and hence of the likely outcome of the demonstration. In this case the physician managed to pass off his failure - he was able to laugh it off.

I noted that failures in stage management of this sort did tend to produce occasions for laughter between students and staff. Sometimes, it would be a source for covert mirth and sniggering from the students - a sort of Schadenfreude, and a delight in their teachers' deflation and possible loss of composure. Alternatively - as in the example above - it could be a topic of humour shared between teacher and students.

In the following example the patient was an elderly man, whom we saw in an acute poisoning unit. The patient had taken an overdose of a drug prescribed to him for hypertension, to control hypertension - he had thus drastically reduced his blood pressure. Since coming into hospital he had also started showing symptoms of alcohol dependence. He had now recovered sufficiently to be sitting up in an armchair, but presented a sorry appearance, and gave a general impression of being confused and disoriented.

> The patient had a black eye, and when Dr. Ewing asked him how he had got it, he want into a rambling account of how he had been set upon by the ward orderly so he could'keep his job open' - there having been no other patients in the ward at that time....
>
> Dr. Ewing asked him the date, the day of the week, and the year, and he got them all correct. The doctor then encouraged him to elaborate on his story of assault by the orderly. But the patient did not attempt to offer any more detail; or to embroider his story in any way.
>
> Dr. Ewing said that some patients of this sort show 'micrographia' - that is their handwriting gets very small. He gave Mr. W. a notebook and a ballpoint, and asked him to write out his name and address. The

> patient did this very laboriously. But when we examined it, although there was clear evidence of tremor, there was no sign of the handwriting getting any smaller ....

Later Dr. Ewing took the students into a side room to talk about the patient:

> ....whilst talking about the symptom of 'confabulation' (i.e. making up stories and fantasies), Dr. Ewing said that he had been trying to get Mr. W. to confabulate fu further about his imagined assault (he had in fact received his injury by falling out of bed during an episode of <u>delerium tremens</u>). Dr. Ewing went on that he hadn't really been confabulating - and he would 'see him afterwards'; similarly, while talking about the patient's failure to display micrographia, he said he clearly hadn't 'briefed Mr. W. properly beforehand!'

The physician and the students all laughed at this overt reference to the 'pre-diagnosed' nature of cold medicine bedside teaching. The context was a potentially disturbing one - an acute poisoning unit, where a number of parasuicides were being cared for. It was a depressing place - physically unprepossessing as well as occasioning emotional response for the patients. Tension and nervous laughter were never far beneath the surface. However, Dr. Ewing's joke at this point came off in terms of his explicit reference to the 'stage-management' of the encounter. His comment represented a glimpse behind the scenes, and a glimpse of the stage machinery whereby a performance of clinical technique could be sustained. In this instance, nature failed to mimic art and the physician's reliance on his foreknowledge of the patient's condition let him down.

Students acknowledge the physician's prior information about the patient as a resource in demonstrating his clinical skill and producing

'neat' diagnostic findings. I made the following notes after a coffee time discussion on Dr. Burton's teaching-style and personality. The fourth-year students were sitting with two men in their Final Phase.

> 'The students has been commenting on Dr. Burton's claim to be able to diagnose a myocardial infarction simply from his observation of cyanosis about the patient's features. A fair degree of incredulity was expressed as to whether Dr. Burton really could produce accurate diagnoses, as he claimed.
>
> A senior student said that the consultants often pretended to be making a diagnosis on the strength of what they were doing at the bedside with the juniors, but in fact had access to extra information which they didn't acknowledge. John (a fourth-year) agreed, and said that when Dr. Burton had examined a patient he'd never seen before he'd been completely stumped. He instanced the 18 year old girl we had seen with symptoms and signs of a neurological disorder'.

The patient that the student referred to had caused a certain amount of comment among the students. The consultant had taken a teaching session on a girl who had been admitted the previous evening. He had not actually studied her himself, and it appeared that no diagnosis had yet been formulated in connection with her. Certainly the doctor had no previous diagnosis to rely on. We came upon the patient as a senior student was taking her history. Dr. Burton got the senior to present the case to the clinique. The history was a fairly vague one of numbness, tingling and weakness of the limbs. Dr. Burton asked the girl some questions himself and then went on to perform an examination of the patient. He concentrated on a neurological examination of her arms and legs.

When he had completed demonstrating the examination, Dr. Burton

commented that the clinical findings were hard to interpret and he had never seen a case like it before. The doctor commented to the senior student: would he like this case in his final examination? The student said he wouldn't and the doctor agreed he wouldn't either. As the students commented subsequently, faced with a totally fresh patient the consultant was in difficulties. He was unable to provide the display of diagnostic wizardry which was something of a trademark of his teaching style. (Subsequently the girl's trouble was tentatively identified as <u>disseminated sclerosis</u>, although when I enquired later this was still far from certain).

I am not implying that there was any incompetence on the doctor's part: I have no external criteria to discover whether the case really needed to be as puzzling as he made it. Rather I am pointing out how the circumstances of his teaching session made it a topic for student conversation. Whether or not they were justified in their implied criticism, it provided an apt illustration of their recognition of this feature of 'cold' medicine.

The same phenomenon was brought home to me on a subsequent occasion. Here there was an immediate juxtaposition between a student's attempt to elicit a history from a patient, and a doctor's repetition of the same patient's history. One morning I was accompanying James Baxter as he clerked one of his patients - Mrs. M., an elderly woman who was tucked up in an armchair after her bath. We sat next to her and James began to take her history. He had considerable difficulty in eliciting any clear statements from the woman. She reported constipation, and informed us that her G.P. had sent her into hospital for 'thickness of the blood'. She also told us of

chest pain, but was unable to offer any further information on the pain but that 'it just seems to come and go'. James pursued a number of lines of enquiry but was unable to elicit any further diagnostic information. Indeed afterwards he commented to another student that she was 'a bit of a puzzle' as he'd been able to elicit so little definite information from her.

Later the same morning, the senior registrar took the whole clinique through to the women's ward, and went to Mrs. M. in her chair. She said nothing of the fact that Baxter and I had just left her, and Baxter did not mention it either. The doctor carried Mrs. M's case notes with him and turned to them. He read her history for them: Mrs. M., he told us had been getting a bit of exertion angina, and had been feeling a bit tired. He added that Mrs. M. had noticed that she had been getting thinner, and her G.P. had noticed a change in her appearance. The registrar got one of the students to consider her appearance, which was rather pale, and examine her for signs of anaemia. He then went on to talk about anaemia.

There was a strong contrast between the two events. Although I was aware that Baxter was not one hundred per cent competent at working up a case, he was, I know, one of the most able students. In view of his extreme difficulty in getting a history out of her, I was inclined to agree with him in ascribing at least some of his trouble to Mrs. M's being 'a poor historian', as he put it. In contrast, the teaching clinician had recourse to the previous work that had been done on her. By reference to these case-notes, which included not only the admitting physician's report, but also the general practitioner's comments, the registrar was able to present a tidy version of the

patient's history. This in turn was able to serve as an introduction to a discussion of anaemia of various sorts.

The same student was involved in another episode which also illustrated the resource enjoyed by the clinician by virtue of his previous knowledge of the patient's case.

> Dr. Finch spent a session going through some of the written case-histories that the students had handed in. He did this by giving each student's history to another member of the clinique, who was then asked to present the history from the notes alone.
>
> Dr. Finsh asked Alan Pickering to present the history he had before him. He began, 'We have a sixty-two year old retired bank manager who complained of a mild central chest pain after - er - no - during a bout of 'flu. It goes on to say that the chest pain was not worth description, and so it doesn't say anything more about it...'
>
> Dr. Finch asked what more did we know about the pain, and Alan Pickering repeated that the history didn't say any more about it. At that point, Baxter broke in, saying that the history was his, and that the patient had maintained that the pain was insignificant. Dr. Finch asked Pickering the name of the patient, and nodded in recognition of the name. He said that the problem of this particular patient had been that he had played down all his symptoms. He had also had a badly swollen leg, but consistently refused to admit to any pain in it, until someone had more or less forced him to admit he was in pain.
>
> ...
>
> Dr. Finch asked what the pulse rate had been. Pickering told him it was 108. Dr. Finch turned to James Baxter and asked him if the patient had been nervous when he was taking the pulse as it was pretty high.

> Baxter replied that he hadn't noticed that he was nervous. Dr. Finch smiled and said that he probably knew more about the patient than did Baxter.

Obviously in terms of the 'ideal' approach to clinical work, Baxter's report of the patient's symptoms was inadequate, and he probably should have probed more deeply. However, in addition to his superior general expertise, the clinician also demonstrates his particular advantage. It appears from his comments that the patient in question was a genuinely difficult historian. The 'facts' of the case, as he presents them, were winkled out by the clinical staff over a period of time. The notes in the patient's folder will have been assembled over a period of time since the patient entered hospital. They have been elicited by a range of ward personnel, from the junior physicians upwards. The physician in charge of the teaching can therefore draw on this accumulated knowledge and the facts assembled in the notes. From this vantage point, he can conduct the teaching in terms of presenting the 'right answers'. I spoke with the student concerned about what had happened. He grumbled that he thought that case notes were 'definitely faked' in some cases. He had looked up the patient's folder of notes, and although the patient had described his pain as 'negligible', the notes described this as 'severe pain, of a crushing nature, radiating into the left arm'. This made the notes 'fit' into the classic pattern of myocardial infarction, he explained; he suggested that the notes had been made in the light of the likely diagnosis, rather than the diagnosis being based on the history. He had been aware of what the notes had said, but for his own history, he had decided to write down just what the patient himself had said.

It is by virtue of the 'prediagnosis' of patients' conditions that clinicians may select patients for the demonstration of specific features of history-taking, examinations and diagnosis. Hitherto the description of bedside work has been addressed primarily to the 'long' cases, where students may be required to start 'from scratch', as it were, with a full history and a systematic examination of the patient. In many teaching sessions at the bedside, these processes are in fact curtailed. The teaching physician or surgeon will often indicate at the outset the direction in which students' enquiries should go. They may tell them to begin with, that the patient has had a particular sort of presenting trouble (e.g., that it is a respiratory problem), and ask the students to question the patient on that basis - concentrating their questioning on that system rather than taking a complete history. They may even dispense with a history altogether and direct the students to go straight on to the physical examination of a particular system.

This sort of management of the teaching session is well illustrated in the pedagogical approach used in Dr. Maxwell's clinique, known as the 'Friday run-around". Here students were given a list of patients whom they were to visit briefly, and examine just one thing about them, or ask them about just one aspect of their illness. Here is a typical set of instructions issued to the student members of the clinique before they left the teaching room to 'run around' the wards. The consultant put up a list of patients' names with the instructions beside them, and diagrams of the wards, giving the locations of the patients' beds in them:

Male, 1st Floor

(1)	J.	axial skeleton
(2)	B.	had pancreatitis - take history
(3)	Thos. R.	examine abdomen
(4)	Jas. R.	examine ocular movements

Female, 2nd Floor

(1) S. examine precordium

(2) D. " "

A subsequent 'run-around' offers a very similar picture:

Male

(1) R. examine precordium

(2) L. lesion by left groin

(3) P. alcoholic - take it from there

Female

(1) H. right eye

(2) H. parkinsonism - find out about it

(3) F. examine abdomen

(4) P. examine left eye

(5) C. presented with haemoptysis - find out why

Having received their 'marching orders' in this way, the students split up and go about individually, visiting the various patients on their list. Subsequently they all come back to the teaching room and compare notes on what they discovered with some of the physicians.

These 'spot' investigations can highlight for students just how much information can be retrieved from the investigation of just one symptom, or just one organ. As one girl explained to me:

> We had what we called 'the run around' where they sorted out about ten patients and said: examine the chest, or the hands - and you'd go round each of the patients and discuss afterwards what you'd found. And I thought that brought it out very well, how much you didn't know in the examination. It helped to bring it in next time. 'Cos I'd never have realised there was so much to examine in the hands - you know, I'd just sort of looked at it and said: 'Oh yes, that's alright'. But the number of things to do... muscles, joints, tendons, various movements, skin texture, you know all the lot. We didn't realise there's so much to actually test.....

These exercises, then, provide students with excellent opportunities for observing the particularities of specified conditions. They would normally engage enthusiastically in the performance of these 'run-arounds'; they combined variety with the ability to gain diagnostic information (or confirmation) with least effort. This variety of diagnostic 'game' is, as I have said, made possible by virtue of the clinicians' detailed knowledge of the patients which they have already assembled in the course of their routine diagnostic and therapeutic work. In such situations they can, to all intents and purposes, guarantee that if the students enquire and observe methodically, then clinical 'facts' are there for the finding.

On the other hand, for the 'game' to be successful and a satisfying one, then the information should not be entirely 'obvious', simply by virtue of the preliminary information provided. As has already been described, the process of educational 'cold' medicine can be spoiled if the discovery of clinical information is short-circuited. Such short circuiting can arise also when patients are selected for spot-diagnostic exercises. If the exercise is <u>too</u> specific, then the 'answer' may turn out to be a 'forgone conclusion'. This can be exemplified in the following incident, taken from my field notes in medicine.

> One morning, I discovered that 'mock' final examinations were being conducted on the wards, and the humior students were rather at a loose end. This was explained to me by Owens, who commented to me that since they had not been allocated any patients to 'clerk' this week, they were having to 'fill in with lesser tasks'. This morning, he told me, they had been given 'little missions' to occupy them for the first hour or so. Owens told me that he had been told to go and see a woman patient and diagnose what was wrong with her just by listening to her voice. He told me, with an air of some

disgust, that there was only <u>one</u> condition that can be diagnosed just from the voice. 'What is that?' I asked him.

'Myxoedema'.

'What's that?'

'Thyroid deficiency'.

'And what happens to the voice?' I asked him.

'It gets low, and slow, and monotonous, and the syllables get mixed...' (he himself imitated the low monotone). '...if she hasn't got that I shall refuse to make a diagnosis.

He left to visit 'his' patient.

One by one the students on the unit came in and went off on their various 'missions', while I stayed in the teaching room, writing up my notes and chatting to students as they came and went. A bit later, Owens cam back, and said in a bored, I-told-you-so voice, 'She had a slow, monotonous voice...'.

In this instance it appeared that despite the ingenuity of suggesting that the student should diagnose from the patient's voice alone, the instruction was too 'obvious', gave away too much information in itself, and - for the student concerned - undermined what he saw as the purpose of the exercise.

The possibility of this sort of short-circuit was something which the physicians could take account of in the run-arounds described above. In the second list of patients I reproduced there were two for whom students had to examine just one eye. On that occasion, before the clinique split up and went their various ways, one of the registrars forewarned us:

> 'I'll tell you about Mrs. P. and Mrs. H.
> They're not diabetics, and they're not hypertensive -
> if that's the extent of your knowledge of the fundi..'
> 'Oh', said Jackson, amidst laughter from the rest of the group.

I take it that the point of this caveat from the physician was this: pathological changes to the back of the eye (the fundus) are commonly associated with diabetes and high blood pressure. It is a good guess that if students have seen any retinopathy in the previous use of their opthalmoscopes, then it will have been in the context of one or both of these conditions. Hence students may run away with the idea that being told to examine a patient's fundi will guarantee the presence of one of these problems. The student, Jackson's obvious disappointment on hearing that he could not assume diabetes as the diagnosis showed that he at least had been banking on this strategy, and that it was indeed the limit of his knowledge of retinopathy.

Assuming that the patient is ill

In trying to arrive at a diagnosis there are a number of ad hoc rules that students may employ and strategies they resort to. One of these basic rules is that of 'assuming that the patient is ill'. Insofar as the teaching takes place in a hospital with people designated as 'patients' the assumption that the people that students are confronted with are 'ill' is for most practical purposes and for most of the time a reasonable one. Its status as a ground rule is made apparent when it fails to serve as a useable premise. This was indicated in the following episode I recorded during the second term of my observations.

Dr. Burton stopped at the foot of a bed and asked one of the group to tell us what he saw. He replied that he saw 'An ill woman, propped up on her pillows and dyspnoeic'. Dr. Burton asked him why he thought she was ill. The student began to reply that 'The very fact that she was in hospital...'. Dr. Burton broke in that that was 'a possible first line of defence - but a very weak line of defence', as there

were people in hospital who were convalescent and ready to go home.

There also appeared to be no adequate reason for this young doctor to comment that the patient was dyspnoeic (i.e., having difficulty with her breathing) except for the fact that she was 'propped up on her pillows'. Patients who are having trouble in getting their breath (dyspnoea) typically find the difficulty eased somewhat if they sit upright - usually supported by three or four pillows (orthopnoeic). It thus appeared that this young doctor, picked on to make a quick, on-the-spot assessment of the patient: (a) read her as 'ill' (as she was a hospital patient in bed), and (b) read her posture in bed as evidence of the specific disorder that provided for her presence there. His inference might or might not have been empirically verified, but the point is that if the premise that 'the patient is ill' falls, then her posture in bed is quite validly read as that of someone simply 'sitting up in bed' - to read or look about the ward, chat to her neighbours, etc. - and could well be taken as a sign of restored health ('sitting up and taking notice') rather than its impairment.[1]

A variant of the rule appeared during the early weeks of my observations. The first weeks of introduction to the clinical work of the year - with exercises in history-taking and examination, tours round the hospital, meetings with nursing staff and social workers, etc. - included a number of sessions with psychiatrists. The

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1. This also illustrates once more the fact that students do not normally have continuous contact with patients, and so are not aware of the development of their hospital careers.

psychiatric sessions were designed as exercises in the taking of a social and psychiatric history, and to make students aware of possible psychiatric components to what appeared to be purely organic disorders. They were also seen as providing opportunities for discussions of possible social and psychological complications following illness. The students had patients allocated to them, and were required to take a full history from them - working in pairs - and jointly to present the results of their investigations to the rest of the clinique and the teaching psychiatrist. The patients who were selected for this task were all in the general medical wards, and none of them displayed grossly unusual behaviour. (For instance, one of the physicians, in allocating one of the patients for these psychiatric interviews commented that he had 'a hint' of psychiatric trouble).

An outcome of the limited degree of psychological disturbance demonstrated by the patients selected was that some students at least saw the histories as a purely academic exercise. They complained that in trying to construct a psychiatric demonstration on the basis of the patients provided, the psychiatrist was guilty of over-emphasizing psychological features of the patients' accounts.

The crux of the students' disaffection was the relative stress placed on psychiatric and organic explanations for the patients' presenting complaints. The students were willing - some were even eager - to allow for a measure of psychiatric trouble to feature in the diagnosis, and for some psychiatric treatment to enter into the overall management of the patients. But they treated the organic disorder as primary to, or underlying, the psychological disturbance. They jibbed at the psychiatrist exploring the patient's history

primarily from a psychiatric perspective. In particular, the students felt that all organic possibilities and investigations should have been explored and discounted before any psychiatric 'speculations' were indulged in. It was around this issue that the variant of the ground rule of 'assuming that the patient is ill' was brought specifically into play. In this case the rule took the form of assuming 'that the patient really is ill' - insofar as being 'really ill' was equated with being 'organically ill'. The use of this particular piece of practical reasoning appeared most clearly in connection with one patient. As with the others, the students were unwilling to admit of her being a 'proper' psychiatric case, and one girl summed up the attitude by commenting:

> 'Presumably she's in the general medical ward for a good reason...'

and this fact was taken as providing for an organic, medical approach to her problem in preference to the psychiatric.

Assuming that the patient is ill is typically a sound premise for the students to work on: for the vast majority of patients the assumption is shared by the clinical staff. (Of course, to say this side-steps the question of what is meant by the patient being ill, and that is a topic I want to leave on one side for the time being).

To this extent, then, we can see a difference between the premises of the student's diagnostic exercise and that of the doctor. The doctor, in formulating his diagnosis - differential or definitive - cannot work on the assumption of illness to anything like the degree open to the student. For the General Practitioner in particular one of the primary diagnostic goals is to be able to distinguish the non-complaint from legitimate 'illness'.

Through the process of referral from the G.P. and the process of admission to hospital by the resident medical staff, it is typically the case that those who come to be 'patients' will also be 'sick'. Further, the selection of patients to teach on by the clinicians generally ensures that those patients the student sees will have been defined as sick - and will also have had some further diagnostic work performed on them by way of confirming this initial judgement.

In the second of the examples I presented above, the student in question invoked the assumption of illness (as opposed to psychiatric disturbance) on the basis of the patient's presence in a medical (as opposed to a psychiatric) ward. This suggests that we might usefully look further at the presence of such 'clues' from the physical environment of the hospital, and, in more general terms, for additional informal sources of information brought into play by the students as they participate in the information game.

In other words, the student, in reading off such diagnostic clues is engaged in a similar activity to the social scientist who counts up officially generated statistics. The counting engaged in and generated by welfare agencies, courts, hospitals and so on, are the outcome of interpretive processes undertaken by those that generate the frequencies. In the same way the student trades on the previously performed category-allocation and diagnostic ascription done by the hospital personnel.

Of course the phenomenon of 'assuming the patient is ill' is not confined to the diagnostic practices of medical students - a 'bias towards illness' has been noted as a general characteristic of the medical construction of illness. Freidson (1970: 255-259),

presents a general discussion of this point, drawing heavily on the work of Scheff (1963), who identifies such a 'bias' as a medical decision rule in the context of the ascription of mental illness. This is also supported by a wide variety of evidence on 'misdiagnosis' and over-prescribing (see, e.g., Freidson's footnoted references, pp.255-259).

However, in general the medical student is in a particularly privileged position in this regard. Whereas, even given the assumption of illness, the practising general practitioner of hospital physician must make some selection. He must attempt to select what he regards as the 'trivial' cases from the 'non-trivial'; to select from within such cases identified as non-trivial those that will in his judgement benefit from referral to a specialist, and those that he feels he can appropriately manage himself. (or, if he is the specialist himself, select at out-patients those that 'really' need his expertise, as against those whom he can refer back to the general practitioner) etc.

But for their immediate practical purposes and for most of the time - unless explicitly informed otherwise - the medical student can reasonably assume that such selection has been performed. He can assume that the continued presence of the patient on the ward implies that his 'problem' continues to be granted the status of 'legitimate medical problem' by the ward personnel.

Informal Sources of Information

Just as the student may use the patient's presence in hospital as documentary evidence for his supposed illness, and presence in a medical ward as evidence of organic illness, so more specific items of information may be gleaned simply from the physical location of the

patient. For the students it goes without saying that the patient in a ward clearly labelled 'Metabolic Unit' may reasonably be assumed to be suffering from ametobolic disorder, and that a patient in the gastro-intestinal unit may be taken to have a complaint relating to the gut. The argument extends to a wide range of locations within the hospital - e.g., coronary care units, renal units, respiratory units, hypertension clinics and so on. All such milieux mark off a class of disorders that the student can expect to encounter within them and thus provide starting points in his search for information. In a similar way, though less reliably, a knowledge of the specialist interests of the clinical staff of the wards may furnish some guidelines in the search for clues.

One of the most readily available sources for information that is located in the immediate vicinity of the patient's bedside is the chart which hangs at the foot of the bed. The chart records temperature, blood pressure, drugs prescribed and daily excretion. A certain amount of basic and valuable information can therefore be cleaned from scanning this chart. Its use as a source of information and clues to the patient's condition is not unambiguous. My first recorded observation of the use of the chart occurred on the second medical unit I was attached to:

> Dr. Rosen took us to the bedside of a male patient (Mr. S., aged 67).... One or two of the students took an immediate look at the foot of the patient's bed. As they looked at the chart together, there was no suggestion either from their demeanour, or from Dr. Rosen's reaction (or lack of) that such a scrutiny of the patient's chart was an out-of-the-way or illicit action on the part of the students.

My own reaction to the use of the chart in this way suggests that I personally did find it somewhat out of the way. Certainly I had not

observed students consulting the chart on my first medical unit and I was not used to seeing the students openly consulting such a repository of diagnostic clues.

My own ambivalence was to some extent reflected in the fact that not all clinicians reacted to students' consultation of the chart in the same way. In the first instance I quoted above, the event was not attended to by the physician involved, and his teaching progressed without explicit reference to the information the chart recorded. In the two following field extracts, I record how the occurrence was noted, and how the reactions differed.

In the first instance, Dr. Murdock a senior consultant who was often referred to as 'one of the old school' was teaching on a patient in the ward teaching room. Her bed had been wheeled out of the ward and into the room by two of the students:

> As the patient was wheeled in and parked in the middle of the teaching room ... a couple of the students seized the chart from the foot of the bed and examined it. Dr. Murdock asked them what they had discovered from it, and one of them replied that the women had a chest infection and was allergic to penicillin. Dr. Murdock congratulated him on his deduction.

In sharp contrast is the third extract I want to quote:

> As Tim Warner began the examination, Dr. Murdock noticed that some of the students were looking at the woman's chart hanging at the foot of the bed. He told them to stop looking at the chart, as they would be able to tell what was wrong just by looking at the treatment she was receiving.

In other words, while the chart may be readily available, clinicians attitudes towards students' use of it as a source of

varies. Whilst use of it is not necessarily surreptitious, it was not a specifically recommended undertaking for students to consult it. Although the occasions on which I observed it directly were few, one might speculate that the legitimacy or otherwise of the chart's use will be related to the nature of the teaching exercise the clinicians wish to initiate. If the primary focus is on examination, then the use of the chart to establish basic clinical information may well fit that intention well: if the exercise is designed as primarily focused on history-taking and the processing of information about the patient, then chart-use, which short-circuits the process, might be negatively sanctioned. Certainly this is the case with the examples I have presented; in the first two cases the session was devoted primarily at examination, whilst in the third case the emphasis was on history-taking.

There appeared to be a similar degree of ambiguity over the use of the folders of patients' case-notes. Students regularly used case-notes as a source of 'back-up' information in the course of clerking a patient and doing a full-length history and examination.

A more direct, and more thoroughly illicit, informal source of unauthorised information is that of other people on the ward. Although students do not routinely come in contact with people on the ward other than patients and doctors, they may engage in fleeting encounters with such personnel - and these may provide opportunities for the sharing of informed knowledge about the patient's condition. Here it appears to be a case of outsiders, or semi-outsiders who are aware of the information-game and who seek to help the students by passing on to them useful tips. For instance:

> Dr. Maxwell took us upstairs to the female ward: he dashed on ahead to ask the patient if she would mind if we came to see her. We waited outside the ward - and one of the nurses came up and whispered to us that 'she came in with suspected ulcer!'

The nurse quite clearly enjoyed her illicit participation in the game, and was one of the few nurses who explicitly attended the presence of the students on the ward. As students passed round the ward on one of the 'run-arounds', for instance, she kept up a constant stream of chatter and jokes about 'all these young men' disappearing behind the screens with her old ladies. Her divulging of information about one of her patients was part of her participating in the students' presence on the ward. Her attitude was in contrast to the indifference with which most nurses appeared to treat the presence of students or the existence of teaching sessions.

A similar example of the sharing of diagnostic knowledge was reported to me by one of the students in the second term of my observations. As was so often the case, the information was cleaned during the mid-morning coffee-break.

> Whilst I was buying the teas and coffees, Cherry told me that when he had been on Dr. Burton's clinique, they had had an examination. He had been examining a patient, and didn't have any idea of what was wrong with her: he had got himself in a frightful state, he said. In the end, Rose, the ward auxiliary nurse, had made him and the patient a cup of tea, and had told him what was wrong with the patient. (Cherry went on to explain that she had had a coronary thrombosis, but thatthe presentation was 'not typical' of the condition).

This particular auxiliary had spent a very long time on the ward, and was affectionately referred to by the chief consultant as

being the mainstay of the unit, and as knowing more about what went on than anyone else. In sharing her knowledge of the patient's diagnosed condition, she, like the nurse referred to above, appeared to be eager to involve herself in the students' participation in the work of the ward. It would be tempting to see these cooperative disclosures on the part of lower status ward personnel as attempts to demonstrate their own clinical knowledge to the students. The students can be an audience for this insofar as they themselves share low status on the wards, and have sufficient clinical knowledge to validate the others' claim to such expertise.

3.6 : Summary and Discussion

This section of the thesis has been a selective ethnography of clinical teaching, with emphasis on bedside teaching interactions between doctors, students and patients. The guiding theme has been the tension and the relationship between medical or surgical work, as it is routinely performed by the clinical staff, and the students' own clinical experience. By employing the notion of 'hot' and 'cold' medicine I have explored how clinical teaching is arranged in such a way as to produce a working model of clinical work, and I have focused on the ways in which the transfer and distribution of knowledge are organizing principles for the actions of the parties involved in these bedside interactions.

The approach of this section can be summarised in terms of 'information games'. This perspective is developed from Lyman and Scott (1970), Scott (1968) and Goffman (1970). Information games are one of four 'gaming' approaches that derive from Goffman's observations of everyday life. Scott summarises such game-theoretic notions in this way:

> In face-games, each participant manoeuvres to maximize his own realization of a valued identity, while seeking an equilibrium that will permit others to do likewise. In relationship games the participants seek to create, maintain, attenuate or terminate personal relations. In exploitation games, the participants seek to maximize their position of power and influence vis-a-vis one another. In information games, the participants seek to conceal and uncover certain kinds of knowledge.
>
> (Scott, 1968, p.159. Emphasis as in original).

As Scott himself points out, these may be treated as distinct for analytic purposes only, and in concrete situations they are 'empirically overlapping'. Further, they do not in themselves constitute analytic procedures, but should rather be seen as 'sensitizing concepts', in the sense described by Blumer (1953): that is they give the researcher 'a general sense of reference and guidance in approaching empirical instances', and 'suggest directions along which to look'. In ordering and reporting the material on bedside teaching, I have been guided by the idea of information games as a concept linking the processes of face-to-face interaction and the social distribution of knowledge. It is think link which provides a distinctive aspect of an educational encounter - that its manifest function is the transmission and management of knowledge.

The notion of an information game has been applied in a particularly telling way in Scott's ethnography of race-track punters and their attempts to discover 'tips' and reliable information concerning the horses in a race (Scott, 1968). Similarly, it has been brought into play to analyse the relationships involved when blacks pass for white, or homosexuals pass for 'straight' and so on (Lyman and Scott, 1970): they seek to ensure that information and aspects of their identity that may be discrediting shall remain undisclosed. In the same way, in Scott's work on horse racing, he describes that whilst the punters will seek to uncover relevant information, so the owners, trainers and jockeys will be involved in covering up the information that the betting man seeks (e.g. whether or not the horse will be really 'trying'). Thus, in the course of such information games, the actors will be engaged in sequencies of strategies - of covering and uncovering moves. Whilst one or more

participants will seek to discover information, and so initiate uncovering moves, so these may be countered by covering up on the part of the actor or actors who have control of the information that is sought. In the course of interaction, the actors will be engaged in monitoring the 'information-state' of the co-participants - in an attempt to gauge how much information they have gleaned, or how much they 'really know'.

Scott's discussions are addressed almost exclusively to situations where one actor is concerned that information should remain covered and undisclosed. However, we can extend the notion to situations where the purpose is that information is discovered, and that this is the ultimate purpose of the actors on both sides. For instance, consider the proper guessing of who is the guest on a panel game such as What's My Line? Although the game will be played as if the purpose is to fool the studio panel, there will be considerable chagrin if the celebrity guest is not almost immediately identifiable and is found out. The procedure employed here is that the guest's identity is kept secret in the hope and expectation that it will be readily discovered by the inquiries of the panelists. In the case of bedside teaching, the previous diagnostic work that has been done on the patient may have to be suppressed by the doctor and/or the patient; and if the patient is in danger of divulging it to the students in a premature fashion, then the clinician will invoke covering moves to maintain the students' information state. However, what is at stake is not so much that the relevant diagnostic information should remain undisclosed throughout the teaching session, but rather that it should appear in the appropriate manner and at the appropriate time. It is not the purpose that it should always

remain hidden that our hypothetical patient has thyrotoxicosis (or whatever), but rather that such information should be established and validated through the application of the correct principles of history-taking, physical examination and diagnostic inference. It is necessary that the parties should 'go through the motions' of normal clinical procedure. The conduct of the information game serves to ensure that an orderly transfer of information should occur in accordance with the rules of clinical inquiry.

In the triadic situation that I have sketched, the major work of information management is the task of the teaching doctor. On the basis of his previously acquired stock of knowledge about the patient he is in a position to monitor the flow and disclosure of information. As I have described, if there appears to be a danger of premature disclosure, he may be in a position to produce covering moves. In some varieties of information games, or 'strategic encounters', such covering moves will involve surreptitious action, the erection of false fronts, trailing red herrings and so on. In the contest of the bedside teaching encounter, such covering may take a more straightforward form - questions and answers being ruled out of court as contravening the conventions of the diagnostic exercise. The bedside interaction is openly defined as an information-seeking situation, and to that extent, the frank vetoing of lines of inquiry are appropriate moves. In the same way, when the smooth progress of the history and diagnosis is jeopardised by the non-appearance of information, then uncovering moves may be brought into play by the clinician. As I have already pointed out, it is not the case that diagnostic information should be permanently irretrievable, but should come into the open at the right time. Information which is not

forthcoming may be prompted - its divulgence may be declared legitimate and its appearance facilitated. Thus, rather differently from a two-party information game, it is not the seeker alone who makes uncovering moves, nor his 'adversary' alone who seeks to cover up. The doctor, as third party, and 'conductor' of the ensemble, is in a position to interject such moves into the game, and thus 'cue in' the other parties to the appropriate moves and their place in the conduct of the game.

By the same token, like Scott's race-track punters, the medical students can attempt to discover and read off clues, or seek 'inside' information, in an attempt to improve their own information state. Because the patients they encounter in the course of 'cold medicine' have already been diagnosed and treated, the students can trade on such previously accomplished work. They can inspect the location of the patient and his surroundings, examine the documentary record and so on. Thus the students can attempt to 'fill in' the patient's history, on the basis of the available evidence.

In fact, the basic device which underlies the production of such bedside teaching encounters is a regular feature of teacher-student ineractions. Information-games of various sorts are normal features of classroom discourse in schools. It is by no means the case that all such 'teaching' involves the presentation of information. In various ways, teaching encounters may depend upon the teacher's knowledge and information being held back from the pupils. This has been noted by Sinclair and Coulthard (1974) and Stubbs (1975). Stubbs suggests that many teachers' questions can usefully be described as 'pseudo-questions' - that is, what pass as questions in the classroom are rather different from those that we encounter in other social contexts. Teachers' questions are not rhetorical, insofar as they do

require an answer of some sort, but they do not indicate ignorance on the teacher's part. For most of thetime, when a teacher asks a question it is not because she does not know the answer. A teacher who asks 'Who won the battle of Waterloo?' is nor normally pleading ignorance - she does not expect her pupils to instruct her in elementary history. Whereas in most contexts questioners' utterances will normally be treated as displays of his ignorance, teachers' questions will normally be grounds for the display of her knowledge - either in correcting pupils' answers, or in acknowledging their correctness.

In other words, the enactment of bedside teaching parallels many other forms of teaching - at all levels - in which the teacher's prior knowledge of the 'correct' answer is suppressed, so that the students may elicit it, and the teacher prompt the students (offering suitable 'clues') towards the expected 'correct' answer.

A consequence of the nature of 'cold' medicine, and its location in the wards of a teaching hospital is the nature of their 'investigative stance' (Zimmerman, 1969). By the time that students encounter the great majority of their patients, they will already have passed through the various steps involved in becoming a hospital in-patient. They will have passed through a 'pre-patient' phase (Goffman, 1961); they will have consulted their general practitioner; been referred to out-patient clinics at the hospital; been admitted via the emergency services and the Accident and Emergency department; been admitted to the wards by the resident physicians or surgeons. By the time that students see them, then, the assumption of illness is a strong one: such signs and symptoms that are presented or reported will normally be treated as indications of 'real' underlying illness. This is in

sharp contrast to the picture of general practice, where the assumption of serious illness is not strong, and the doctor's first task may be the decision as to whether or not symptoms do indeed indicate illness that warrants further intervention on his part.

In the same way, the nature of 'cold' medicine tends to ensure that solutions to the diagnostic puzzles will be forthcoming. By virtue of the prediagnosis and pre-selection of patients, physicians can help to ensure that a diagnosis is arrived at by the students, or is told to the students subsequently. Hence students are exposed to patients who give the appearance of well defined and recognisable con ditions. Again, this is in contrast to the normal distribution of illness conditions in the population as a whole. The normal pattern of disorders in the population where there is a far higher incidence of 'vague' or 'non-specific' conditions, couples with a range of problems that may be defined as 'non-medical' in their origin and nature (cf. Gordon, 1966).

Although the patients whom students see may be well-informed as to the nature of their illness, their knowledge and understanding is normally underplayed, in order to facilitate the information-game. Hence, the separation between definitions of 'medical' and 'lay' knowledge and understanding is emphasised in the course of such teaching practices. There is litle or no question of students' exploring the patient's own understanding of the situation, or of any joint negotiation of his illness and his understanding of it. The 'double blind' described by Bloor and Horobin (1975) is recapitulated in the course of clinical teaching. Whatever the events that have taken place before the patient-student interaction, during which the

patient may have become - and acted as - a 'well-informed citizen', in the course of bedside teaching, the patient is once more treated as a 'man-in-the-street'. In this way the practice of bedside teaching emphasises the distance between the 'professional' and his expert knowledge, and the layman who is treated as devoid of expertise.

PART IV : The Reproduction of Medical Knowledge.

'.... almost the entire skill or "mystery" of the trade was conveyed by precept and example in the workshop, by the journeyman to his apprentice. The artisans regarded the "mystery" as their property, and asserted their unquestionable right to "the quiet and exclusive use and enjoyment of their .... arts and trades".'

(E.P. Thompson, The Making of the English Working Class, 1965, p.253).

4.1 : The Reproduction of Medical Knowledge.[1]

Introduction

In the previous part of the thesis, the social relations at the bedside were discussed. I examined the social distribution of information concerning the diagnosis - its accounting and reconstruction. Hitherto, however, the purpose of such 'information games' has not been examined in any detail. I have talked rather generally about 'information about the patient', without close examination of the nature of such information, and how diagnosis is talked about, presented and managed in the course of clinical teaching. This last part of the thesis will therefore go in more detail into the production and reproduction of medical knowledge in clinical teaching. In the course of this discussion the theme of professional segmentation will be introduced once more; here it will be liked with the themes of 'personal experience' and the 'ownership of knowledge'.

Glossing and Mock-Ups

I begin by recapitulating what I take to be the main features of bedside teaching as 'cold medicine'. Student work on patients is managed in such a way that it proceeds 'as if' diagnostic work were starting afresh. Thus 'cold medicine' is accomplished in such a way as to reproduce and parallel crucial features of the reality of 'hot medicine'.

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1. Parts of the following argument were outlined in "The Reproduction of Medical Knowledge", a paper presented to the Annual Conference of the British Sociological Association, Manchester, April, 1976.

What I wish to suggest is that 'cold medicine' is a 'glossing device' (Garfinkel and Sacks, 1970) - that is, a device for 'doing observable-reportable understanding'. In other words, bedside teaching practices are socially organised ways by which the actors produce something like a 'working model' of medical diagnosis. Such a model makes observable and teachable the methods whereby diagnosis is normally done by competent members of the medical profession.

Garfinkel and Sacks suggest something of the sort in their discussion of glossing practices which they refer to as 'mock-ups': they instance working models as an example:

> Mock-Ups. It is possible to buy a plastic engine that will tell something about how auto engines work. The plastic engine preserves certain properties of the auto engine. For example, it will show how the pistons move with respect to the crank shaft; how they are timed to a firing sequence, and so on....
>
> Let us call that plastic engine an account of an observable state of affairs. We offer the following observations of that account's features. First, in the very way that it provides for an accurate representation of features in the actual situation, and in the very way it provides for an accurate representation of some relationships and some features in the observable situation, it also makes specifically and deliberately false provision of some of the essential features of that situation.
>
> (Garfinkel and Sacks, 1970, p.263).

Garfinkel and Sacks' formulation of a 'mock-up' encapsulates precisely the nature of 'cold medicine' as an account of 'real' medicine, and providing a model of that state of affairs. In the accomplishment of such accounting devices, we can see how bedside

teaching makes 'accurate representations' of real medicine (in the methods of history-taking, diagnosis, etc.), and how this is possible since it makes 'specifically and deliberately false provision of some of the essential features'. That is, normal clinical methods can be employed insofar as the reality of previous clinical work is suppressed or held in abeyance for the duration of the teaching exercise. This feature of bedside interactions allows for the ways in which it can be controlled and managed by the 'user' (in this case, the teaching clinician). The 'false provision' (that prior to medical work may be discounted) allows for his techniques in managing the transfer of information between the parties - through prior acquaintance with the patient's condition. Thus the clinician can 'work' the model and articulate the account.

The cold medicine mock-up can be further illustrated and paralleled by a brief consideration of recent developments in the teaching of the natural sciences in secondary schools.[2] Through the sponsorship of the Nuffield Foundation and the Schools Council, the past decade has seen major innovations in science teaching. The main feature of this has been an emphasis upon learning by 'discovery'. Rather than being the passive recipients of 'facts', delivered ex cathedra by the science teacher, and divorced from their immediate experience, school pupils should rather learn science by doing it. That is, they should 'discover' science and scientific understanding by performing experiments themselves. The teacher's task became redefined as one of co-ordinating and guiding the pupils' own 'discoveries'.

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2. A detailed comparison between 'guided discovery' school science, and bedside teaching is contained in Atkinson and Delamont (forthcoming).

Now it is by no means the case that the 'discovery' of phenomena in the natural world can proceed independently from the methods of inquiry employed in the 'discovery procedure'. As Delamont (1973) has documented, the classroom practice of such 'mock-ups' of the work of scientists, requires a great deal of more or less covert 'stage-management' on the part of the teacher. The pupils' line of inquiry have to be curtailed by the science teacher if they are to 'look for' the appropriate phenomena, arrive at the 'correct' observation, and hence 'discover' the expected scientific facts.

In this sense, the school science lesson and the bedside teaching period are similar, in that they both depend for their success on the teacher's acting 'as if' the answer to the problem were not already known, but needed to be discovered afresh - thus parallelling real contexts where discovery (scientific or diagnostic) is in fact the outcome of scientists' or doctors' inquiries.

In both cases, then, the nature of the 'mock-up' depends upon (i) the 'discovery' of appropriate conclusions, (ii) by the use of appropriate methods of inquiry ('experiments' or 'history-taking and examination'). In the following discussion of bedside teaching I shall explore further how 'cold medicine' provides occasion for the reproduction of clinical and diagnostic methods. In other words, I shall examine how the practices of bedside instruction provide concrete demonstrations of the warranted nature of clinical knowledge.

Warranting Knowledge

The central concern here is an investigation of how the 'facts of the case' are determined and legitimated by reference to the procedural rules of 'correct' and 'methodical' enquiry. When we speak

of ascertaining 'the facts' we assign a special status to certain sorts of accounts and propositions - for instance as opposed to 'opinions', 'beliefs', 'guesses' and so on; by implication these latter are not granted the same warrant as well-researched, fully documented, correctly retrieved 'facts'. The status of such 'facts' is not something which is inherent in the accounts of them - but rather resides in the procedures and rules which are used to establish and validate the knowledge. This is expressed by McHugh (1970):

> ...nothing - no object, event, or circumstance - determines its own status as truth, either to the scientist or to science.... An event is transformed into the truth only by the application of a canon of procedure, a canon that truth-seekers use and analysts must formulate as providing the possibility of agreement.

The place of such methodic procedures in the determination of 'facts' is highlighted in Kuhn's analysis of scientific revolutions (Kuhn, 1970). For Kuhn, it is the scientific 'paradigm' which provides the ground-rules for scientists' consensus over appropriate topics for inquiry, appropriate methods and the sort of answers that might reasonably be expected. As Kuhn himself puts it, the paradigms

> provide scientists not only with a map but also with the directions for map-making. In learning a paradigm the scientist acquires theory, methods, and standards together, usually in an inextricable mixture.

Kuhn's analysis of 'normal' and 'revolutionary' phases in scientific research and discovery draws attention to the fact that the practice of scientific inquiry is inescapably a <u>social</u> activity, insofar as it depends upon the organised consensus of those engaged in science, and

on their shared methods for the production of scientific knowledge.

The problem of ascertaining and warranting the 'facts of the case' is by no means confined to natural scientists. It appears as a practical problem in a wide range of everyday work. This is well documented by Zimmerman (1966) in his study of case-workers in a social welfare agency.

It is a routine problem for the case-workers that they should establish whether applicants are entitled to the money and assistance which they claim. Applicants need to demonstrate 'need', and the agency workers must determine their 'eligibility'. There is, therefore, a crucial distinction between the claimant's 'story' and the 'facts'. For a story to become transferred into a factual account, the caseworker must check and validate the 'reliability' of the claimant's account. One important aspect of this process is the way in which caseworkers rely on documentary evidence. Yet in establishing documentary evidence, 'any old piece of paper' will not do - only 'official' documents will suffice. Such documents are taken to guarantee that the 'facts' that they record have themselves been investigated, processed and recorded in a 'correct' and methodic manner. Bureaucracies and large-scale organisations are taken to operate in methodic ways which the caseworker recognises as competent in producing 'facts' and 'evidence'.

In the same way, the caseworker herself assembles documents on the applicant - producing a 'case' which itself records the caseworker's 'investigative stance' of scepticism and methodic inquiry. Thus the caseworker assembles the 'facts of the case' in accordance with the legitimate rules of procedure of the bureaucracy, and bases her 'case' on 'evidence' provided by comparable bureaucracies employing equivalent

methods of inquiry and documentation. Zimmerman thus points out how workers, whose task it is to produce orderly factual accounts depend upon the demonstrable, rational and methodic ways in which their accounts have been assembled.

A similar perspective is provided by Smith (1973) in her discussion of the production of 'documentary reality', which she described as 'constituted in those socially organised practices of reporting and accounting, which mediate our relation to "what really happens" '. Smith emphasizes how 'the fact' is not what happened in its 'raw', uninterpreted state. The 'factual' resides in the way 'what happened' has been worked up into an account of which itself provides for a 'factual' reading and understanding. The nature of 'factual' accounts, however, allows the reader or hearer to treat them in such a way as to discount its social nature: the organization of the account is itself 'transparent'. In this context Smith draws a parallel between the social production of facts and the production of commodities.

Marx wrote:

> A commodity is ... a mysterious thing, simply because in it the social character of man's labour appears to them as an objective character stamped upon the product of that labour.
>
> (Marx, 1954, p.77).

Although such products are created by men's labour, nevertheless they confront their producers as alien objects; the relations between men take on the nature of relations between things (commodities). In much the same way, Smith argues, facts are equally 'mysterious'. They are outcomes of the socially organized ways of dealing with events. Yet they do not appear to be socially produced by men engaged in

practical action. On the contrary, we normally employ the notions of 'opinion', 'belief', 'ideology' and 'bias' to locate the social nature of such knowledge; the language of 'fact' excludes the mediation of the social basis of knowledge-production.

I wish to consider the practices of bedside teaching in this context of the production of 'factual' knowledge. 'Cold medicine' should be seen as a device whereby the rational and methodic nature of clinical investigation, and the retrieval of the 'facts of the case' are produced and reproduced.

There is a dialectical relationship between 'facts' and the socially legitimated methods for their 'discovery' and 'testing'. The methodic nature of their production is a warrant for the 'correctness' of the facts of the case. At the same time, it is the reliable discovery of such 'facts' that further furnishes a warrant for the methods of inquiry. I take it that this is the force of Kuhn's notion of 'normal science', conducted in accordance with a 'paradigm'; the paradigm provides approved topics and appropriate research procedures; the successful accomplishment of such procedures and the 'findings' that are generated in turn serve to reinforce the value of the paradigm.

In this sense, the accounts of 'facts' are 'reflexive' (Garfinkel, 1967). That is, the accounts of states of affairs are themselves constitutive of the affairs they describe. As Filmer (1972) paraphrases Garfinkel,

> ... rules, then, are only established as such by their ability to organize the settings or practical, everyday, commonsense actions - an ability which is proven in organizing these actions.

In the medical context, therefore, the facts of a diagnosis are guaranteed by the rules and procedures of clinical inquiry which establish them: by the same token, these procedures are validated insofar as they generate reproduceable and reportable diagnoses.

Displays of the rational nature of such socially warranted methods are an important ingredient in a novice's learning of how to become a competent investigator of facts. Zimmerman (1974) refers to this in his discussion of welfare agency workers. Those who were new to the job were instructed by the 'old hands' in the correct application of the rules of investigative procedure. It was part of their 'on-the-job' training that they should adopt a sufficiently sceptical attitude towards applicants' stories, and address the relevant criteria to establish (or disprove) the factual basis of such claims. This is assured by their search for appropriate documentary evidence, by inspecting the methods whereby such evidence is produced and assembled.

In the same way, the performance of clinical teaching depends upon concrete displays of the efficacy of the 'investigative stance' and procedures of the competent clinician. It is this light therefore that one must consider the reconstruction of the patient's case in the course of the bedside encounter.

The practice of 'guided discovery' in students' diagnoses (as in school science) is a version of what Bernstein has referred to as 'invisible pedagogy' (Bernstain, 1975). The distinction between 'visible' and 'invisible' pedagogies rests on the manner in which cultural transmission and reproduction are accomplished: 'The more implicit the manner of transmission ... the more invisible the pedagogy'.

Bernstein's arguments are formulated primarily in connection with varieties of pre-school and infant schooling, but mutatis mutandis they can be extended. One of the fundamental characteristics of 'invisible pedagogy' that Bernstein identifies is that 'ideally, the teacher arranges the context which the child is expected to re-arrange and explore'. This facet of invisible pedagogy can likewise be seen in the practices of bedside teaching, which also depend upon the student's exploration of a pre-arranged and predetermined field of experience.

It is in the nature of 'invisible' pedagogies that the methods of social control should be 'transparent': in other words, the social mechanisms of knowledge-production and transmission should not themselves be made apparent and explicit. Hence the organization and construction of legitimated knowledge passes for an organization that is inherent in the phenomena of the 'real world' under exploration and investigation. The invisible pedagogy of bedside teaching practices therefore provide a mechanism for the affirmation of the preconstituted nature of illness as an ontological entity; the social production of 'illness' categories remains invisible.

Normal Illness

Hitherto I have argued that bedside teaching is an organized way for the display of clinical methods in reproducing the relevant clinical 'facts of the case'. At this point I shall consider the nature of a 'case'.

The 'documentary method' (Garfinkel, 1967) that doctors and medical students employ is a twofold process. There are two levels of interpretation involved in the production of diagnoses: they are

closely and dialectically related. In the first instance it is the task of medical investigators to treat 'signs' and 'symptoms' as indexing underlying physiological conditions. Though not always successful, they try to relate these indices in order to read off a coherent diagnosis, indicating the presence of an identifiable illness, disorder or syndrome. At the second level, the patient's condition is itself an 'index' or a 'case' of the disease in question. Just as the separate and individual signs in the particular patient are understood in the light of what is known about the typical onset and course of the illness under normal circumstances.

For the purposes of clinical education, then, the exercise does not simply consist in the observation and diagnosis of the patient's presenting complaint. It should also provide occasion for students to learn about 'the disease' in question, and related conditions. That is, 'normal illness' is invoked.

By using the term 'normal illness' I deliberately parallel the notion of 'normal crimes' (Sudnow, 1965). Sudnow describes how American Public Defendants (P.Ds) come to construct typologies of offences and the people most likely to commit them. As Sudnow puts it:

> He learns to speak knowledgeably of 'burglars', 'petty thieves', 'drunks', 'rapists', 'narcos', etc., and to attribute to them personal biographies, modes of usual criminal activity, criminal histories, psychological characteristics, and social backgrounds.

Similarly, the P.D. constructs an ecological understanding of offences - that is a sense of where crimes are likely to occur. Hence, what Sundow calls 'normal crimes' are

> those occurrences whose typical features, e.g., the ways they usually occur and the characteristics of persons who commit them (as well as the typical victims and typical scenes), are known and attended to by the P.D. For any of a series of offense types the P.D. can provide some form of proverbial characterization.

The practical import of these classifications of 'normal crimes' appears in connection with the strategies over 'plea bargaining' between the P.D. and the District Attorney. The decision as to whether a reduced charge can be substituted for the original offense depends very largely on whether the crime in question can be routinely treated as a 'normal' one. For instance,

> The property of proposing petty theft as a reduction does not derive from its in-fact-existence, but is warranted or not by the relation of the present burglary to 'burglaries' normally conceived.

Thus the relationship between 'the facts of the case' and what is 'normal' is an important practical problem for the public defendant, and on his interpretation rests the treatment of the case.

The medical practitioner is likewise engaged in matching the observed characteristics of a presenting case to 'normal illnesses'. On the determination of the normal illness involved depends the expected course and outcome of the disorder and the treatment of choice.

This can be illustrated in the following report of a teaching period, during which the physician in charge attempted to demonstrate that the patient displayed the features of 'normal' illness.

Dr. Mayo took us downstairs to the women's ward: he led us into the teaching room and sent two 'strong men' to go and bring in the patient's bed from the ward....

Dr. Mayo then went and brought the patient himself. As she came in he told us that he had interrupted her physiotherapy to bring her to be taught on.

The patient sat up on the bed, and we all got chairs and sat round the bed. 'Who don't we pick on?' asked Dr. Mayo, looking round the group of students - and decided to ask Hilary Morris to begin by taking a history.

The patient interjected that she had told her story so often that, "I should have brought along a tape recording'. (She did not however seem to resent participating in the teaching session, and was very cheerful). Hilary asked her what had made her first come into hospital.

'I'll start right from the beginning' the patient began, and Hilary encouraged her to do so.

The patient described how she had woken up one morning with a badly swollen toe-joint, which was very painful.

Dr. Mayo quickly broke in and asked Watson if this rang any bells for him: Watson prevaricated, and said there were 'several possibilities'. Finally he suggested gout. 'What causes gout?' asked Dr. Mayo. Watson replied, 'Formerly it was port'. 'Do you really believe that?'. Watson remained silent, looking puzzled. Carpenter said it was mostly caused by drugs. Dr. Mayo agreed that it was 'iatrogenic'. He described briefly that modern diuretics (which, he added, one uses a lot) lead to accumulations of uric acid. Watson interrupted and asked what was exchanged for the uric acid. Dr. Mayo said he wash't sure: he suggested that for next Monday Watson read up on the effects of diuretics.

The patient then continued her story, and went on to say that her family doctor had told her it was 'a case for the orthopaedic'. Amongst other things 'the

orthopaedic' said they could cut out the joint, but she had said 'I'll let well alone and keep my joint'.

The patient had then developed a 'tingling', and pain in her right hand: she had previously caught that hand in a door, and she thought the discomfort might be connected with that. She said that the tingling condition in her hand had been diagnosed as 'something internal' - and she added, she was sorry, she couldn't remember more accurately than that.

Dr. Mayo turned to the students and asked them to 'translate' what she had been trying to say. One of the students volunteered that it might be 'carpal tunnel syndrome'.

Dr. Mayo summarised this condition briefly. Watson jumped in with an objection to his description - 'Isn't it usually the median nerve?' Dr. Mayo looked slightly annoyed and pointed out that he had corrected himself when he had said it was the ulnar nerve, and had said it was the median the second time.

Dr. Mayo said to the patient, 'You had trouble with your shoulder too, didn't you?', and she agreed that she had had trouble. All this time Dr. Mayo had the patient's case-notes with him and he constantly referred to them in bringing out the patient's history.

The patient also volunteered that she now had a painful and swollen knee. Dr. Mayo commented that the hand might have been blamed on something else, but now we had a shoulder a and a knee as well, 'We definitely have a polyarthritis'. It was, he added, 'a very typical story'.

The patient volunteered that she gained relief in her hands by soaking them in hot water, and Dr. Mayo commented to Hilary Morris, 'This is the basis of the therapy, isn't it? 'Hmmmm' (nodding).
'What is it?' Dr. Mayo continued. But Hilary in fact appeared not to know. There was no response from any of

the others in the group, and Dr. Mayo told them that the treatment was with hot paraffin wax - which he described briefly.

Dr. Mayo summed up some aspects of the case, and in doing so made a mistake in the timing of the history - her visit to the orthopaedic specialists. The patient corrected him. 'Sorry, I've got the story wrong', and Dr. Mayo hastily referred to the case-notes to correct his summary.

Dr. Mayo then turned to the students, 'What are you thinking of?'

Hilary Morris - 'Nothing'.

'Well, what diseases of the joints do you know?'

'Rheumatoid arthritis', Hilary suggested.

Another of the students offered 'Osteoarthritis', but added that he wasn't sure of the difference between osteoarthritis and rheumatoid arthritis, as he'd never seen a case of osteoarthritis.

Dr. Mayo then wrote the following schema on the baclboard:

	Osteo	Rheumatoid
Age	60+	40+
Sex	=	30 : 10
Joints	Big	Hand/small
General condition	Well	Unwell

Dr. Mayo then read off the patient's history against these categories. 'As for age' be began, 'the patient said she was 53, she's equal on that'.

'That's me being difficult', put in the patient.

When it came to sex and the joints affected, Dr. Mayo said that rheumatoid arthritis seemed to be indicated.

When it came to the final category - the patient's general health, the pattern seemed less claar. 'When you came in, you said you hadn't been feeling well,

and had been losing your appetite'. The patient replied that she hadn't felt unwell. Dr. Mayo persisted, and said that she had been sweating rather: she countered that she had had sweats for many years past. Dr. Mayo said she had had a poor appetite, and the patient replied that she had 'never been a big eater'.

Dr. Mayo, leaving the patient protesting once more that she hadn't felt ill, and hadn't had any headaches or anything... Dr. Mayo referred to the case-notes: 'In fact she had a pyrexia when she came in - a spiky temperature...'

....

Dr. Mayo then went on to a discussion of a number of haematological points, and he said that the presence of a changed E.S.R. 'would be nice'.

Dr. Mayo and the students went on to examine the patient's right knee, which had been swollen and painful according to her history. Dr. Mayo asked Carpenter to tell us what he saw. He immediately started to palpate the knee: Dr. Mayo told him - gently and in a pleasant tone of voice - that he had told him to tell us what he saw.

....

When Carpenter did come to palpate the knee, Dr. Muir asked him if he could detect any fluid in the knee, and Carnie replied that he didn't know how to test for fluid. Dr. Mayo explained how to squeeze the region of the patella, and then try to bounce the patella up and down on the bone underneath, when one gets the sensation of fluid underneath. However, when he tried to do it himself, he was unable to produce the right effect. 'That's me being awkward again', said the patient, with a rather satisfied little smile.

This extended summary illustrates a number of features involved in assembling the diagnosis. Throughout the interaction the clinician who was conducting the teaching made reference to the normal features

of the case. Indeed, his first summary of the patient's history was that it was 'a very typical story'. The patient herself, on the other hand, seemed to orient herself to the particularity of her case - or so I interpret her rather self-satisfied interjections on her being 'awkward' when she appeared not to 'fit' the doctor's classifications. This is an example of how, in producing 'normal crimes' and 'normal illnesses', practitioners proceed by discounting the particularities and idiosyncracies of the case in the course of formulating its typicality.

This aspect of the physician's work in defining the patient as a typical case of rheumatoid arthritis can be seen in his simple classification of osteo- and rheumatoid arthritis. This schematic device presented a series of decision-rules for distinguishing between the normal onset and presentation of the two illnesses. Yet the implementation of these decisions in practice turned out to be problematic.

'Normal illness' is often mapped out by a shift of emphasis away from the individual patient. Having spent some time with the patient, the clinician would often initiate a broader discussion of illness and treatment. This is often accomplished by means of a series of question-and-answer sequences, introduced by the doctor, and beginning with such elicitations as: 'What are the most frequent causes of....?'; How many sorts of _____ can you think of?'; 'What if ...?'. For instance:

> 'What would you immediately think of if you saw a man of Mr. R's age in hospital?'
>
> 'If it had been a middle-aged man - like Mr. S. - what would she have presented with?'

In these ways, clinicians indicate the categories in accordance with

which 'normal' illnesses are recognised - age, sex and so on. This can also be illustrated in a more extended example:

> Dr. Collins began by saying that he wanted to talk about Mrs. G. - saying that the students had already taken a history and examined her. He summarised her history, 'This woman is aged seventy. She collapsed at one a.m. and was unable to move her left side. She had dizziness once or twice over the previous one or two months. She sometimes sees bright zig-zag lights. When she came in she was slightly hypertensive. On examination she had an upper motor neurone facial palsy'. Dr. Collins then went on to question the students on possible causes for the patient's condition....
>
> 'What sort of thing, in younger age groups - any predisposing factors?'
>
> 'Hypertension'.

In the course of clinical teaching there is a constant tension between definitions of 'normal' illness and the particularities of individual patients' presenting complaints. Students need to be able to learn the typical course and appearance of any given illness, despite deviations from the normal in patients they see. Clinicians therefore make repeated references to possible mis-matches between 'text-book' descriptions of illnesses and their presentation.

For instance, during one period of medical teaching, I noted the following sequence of comments which illustrate the use of 'typical' formulations as a device for generating 'normal' expectations, and dis'-tinctions between type and presenting case.

> Dr. He's as hyperthyroid as they come... what in his history is not quite typical - about his weight loss? (Pause - no reply from the students).

His appetite should be increased - in fact he's off his food.

....

Dr. What about the CVS - what would you expect there?

St. Tachycardia - bounding rhythm

Dr. What rhythm could you sometimes get?

St. Galloping rhythm

Dr. Well, you could

St. Atrial fibrillation....

....

Dr. Now in severe thyrotoxicosis - I've never seen it - but there are two signs that the text-books give. There's thyroid acropathy - its like finger-clubbing. You'd need to be in an endocrinology unit to see it....

(He also mentioned pretibial myxoedema as another sign that was 'quoted but rarely seen').

Here the physician's reference to a 'typical' indication of the illness that is not present in the case in question is paralleled by his closing reference to 'text-book' signs which are not routinely present in many cases. In both instances the clinician alerts the students to the problematic nature of the relationships between typifications and instances of illness. In both instances, the students need to 'go beyond' the indications of concrete presentations to read into them the indications of normal presentations. It is the availability of such typifications that informs a wide range of teaching exchanges at the bedside.

A further example of 'normal illness' is offered here.

Dr. The physicians like you to describe the tongue in uraemia

St. Brown fur

Dr. Yes, brown fur. I've never seen brown fur...

The problem which is highlighted here is how, in producing 'typical' formulations, it is necessary for students and clinicians to disattend certain particular features of concrete cases. The doctors allocate candidate patients to 'normal' categories by invoking 'et cetera' clauses (Schutz, 1967; Garfinkel, 1967).

The obverse of the treatment of 'normal' illness and textbook knowledge is the contingency that these typifications may fail to include items of practical use in concrete contexts of diagnosis and treatment.

> The surgeon asked if anybody had heard of Lange's lines. Cartwright volunteered an incorrect answer. The lecturer explained that they are lines of stress in the skin - but he had never seen them referred to in any of the text-books, He spent some time explaining that an incision made along these lines will heal more rapidly than those which cut across them. As an example of this he instanced Elizabeth Taylor - who, he said, wears a lot of make-up to hide a prominent scar from a vertical incision for her tracheotomy - i.e., one made across the lines of stress.

Similarly, in the following extract, a physician comments on the gap between 'theory' and practice in the context of cardiology. He had asked the students to draw diagrams illustrating the 'classic' heart sounds associated with various forms of impairment of the heart. In the teaching room the physician went through the diagrams that the students had produced.

> Dr. Maxwell began, 'Right, mitral incompetence'. He went over to the one of the students, 'What have you drawn? Let me see. First heart sound.... Yes, reduced heart sound', (he draws on the board). 'True or false?' The books are wrong. Every book I've seen draws a murmur to the second sound and stops it there. The great thing about mitral incompetence is ... the second sound is buried in the murmur.

The contrast between 'text-book' rules and rules-in-use in the context of clinical teaching can be indicated by reference to the notion of 'routine'. 'Routine' is an important organizing principle in teaching and learning clinical procedures. The elicitation of a history and its documentation, and the performance of a physical examination of a patient should, students are told, be done according to a well worked-out 'routine'. That is, it should be done systematically and methodically, following a number of steps in sequence.

This concern is made clear in the introductory comments to the booklet which students receive at the beginning of their clinical work, 'A Method of Case Recording in Clinical Medicine'. The first two pages of the booklet contain the following remarks:

> The undergraduate is urged to adopt a method of case-recording such as this in order to ensure that he will develop the habit of setting down his findings in a systematic manner, so that the facts are readily accessible to himself or to others who may have to consult the records, perhaps years later.

And

> This booklet is not intended to replace any of the books on clinical methods which are available but to act as a guide to the student during the initial period of his clinical studies, during which time he is developing a systematic method of routine examination. It is considered that this short booklet will be a useful reminder of the routine to be followed in examination at the bedside, and particularly of the method of recording the findings.

The booklet sets out a series of headings under which information should be elicited and recorded. For instance the main headings are: Name and personal details: History; Physical Examination; After the general examination, the individual systems for examination are listed: Cardiovascular; Respiratory; Alimentary and Urinary; Nervous; Locomotor; Urine; Blood.

Each of these headings is subdivided into a number of more detailed aspects to be investigated and recorded. For instance :

HISTORY:

1. Present illness: main symptoms and duration of each. The mode of onset and course of illness.
2. General history: Changes in weight, appetite, bowel habit, micturition, menses, sleep. Smoking habits. Alcohol consumption. Exposure to drugs and noxious physical or chemical agents.
3. Previous health. Travel abroad.
4. Family history. Living members: ages, health. Dead members: ages at and causes of death.
5. Social history (N.B. It may be necessary to interview a relative for this part of the history particularly).

As may be imagined, the complete list is an extensive one, and a full coverage of the whole of all possible topics would involve the student (or clinician) in an extremely lengthy investigation of the patient, extending over several hours.

During the early days of their clinical work, students are indeed involved in taking such lengthy histories, usually trying to perform such full, systematic histories and examinations. During these exercises, the students are to be observed surreptitiously or apologetically consulting their booklets in order to determine precisely

what topics they should investigate and in what order.

Yet is is clear that investigations of inordinate length are not the normal state of affairs that competent doctors acknowledge as correct. Whilst such an approach might be defensible as 'pains-taking', it is not normally a practical way of setting about getting clinical work done. Time is not available for such methods to be worked through completely in all cases. The experienced worker demonstrates his ability and competence by producing a history and examination in a way which does not conform to a literal adherence to the routine. This much is recognised by the authors of the Edinburgh introductory booklet. The excerpts cited above continue respectively:

> Understanding of the relative importance of the factors in a given case comes only with experience. Therefore, at first it is wise to write each record completely.
>
> As experience grows and a topographical approach is developed, the need for (the booklet) will diminish.

In this way students are confronted with two aspects of practical rule use: that the system must be mastered and followed, but also that experienced following of the rules implies an apparent 'breaking' of the rules. The routine is, in the last analysis, 'honoured in the breach' by the 'experienced' practitioner.

Clinicians present the students with this dual nature of clinical procedure.

> The patient was an old man of seventy who was suffering from severed myocardial failure. Dr. Shaw elicited a history from him for our benefit. The patient had been a road-crossing 'lollipop man'.... He had come into

hospital this time because he was suffering a severe pain in his chest. Dr. Shaw questioned him further about the pain, and any other symptoms.... Dr. Shaw probed with further questions about the pain - had it moved into the neck or arm? The old man reported that it had not moved.

....

Asked for his previous history, the patient said that the only other illness he had had was when he had come into hospital that January: he had had pain in his calves, and he told us that this had been a 'coronary thrombosis'. Dr. Shaw did not follow this up at the time.

....

During the course of the history, Dr. Shaw stopped and realized that he had not demonstrated getting basic information - the patient's name, age and so on. He then produced the patient's charts from the foot of the bed and read off some of the basic facts about the patient.

....

After further questioning the patient, Dr. Shaw took us outside and we stood in the corridor. One of the students pointed out that Dr. Shaw had forgotten to ask if there has been any oedema. The doctor agreed that he had forgotten that. Dr. Shaw then referred to the January admission. The patient had told us today that he had had a coronary thrombosis which had been a 'pain in his leg'. In fact, Dr. Shaw told us, the old man had had a severe cardiac failure and had 'died'; but he had no memory of his previous attack, apart from pain in the hardened arteries in his leg. Dr. Shaw pointed out that he had not wanted to remind the patient of that, or let him know that he had died on that occasion.

In passing, this extract further illustrates two aspects already alluded to: the preservation of 'closed awareness', and the clinician's

invocation of 'in fact' clauses in reconstructing the patient's history. It also illustrates how a physician may not stick slavishly to the systematic, sequential ordering of history-taking, as specified in 'official' rubrics. Indeed, after the particular session, the students themselves referred to this. They remarked the contrast between what they had just witnessed and the advice they had themselves been given in introductory lectures on clinical method. They expressed disappointment that Dr. Shaw had been 'so unsystematic' in his approach to the patient.

The contrast between 'routine' and 'practice' in this context was underlined by the same physician with the same patient on the following day. Mr. Shaw took a second group of students to see the old man:

> In contrast to the previous occasion, Dr. Shaw got the students to do the questioning, only butting in very occasionally. Unlike the other patients they had seen, the old man presented some difficulty, since he had had a sharp pain in his chest, followed by his entry into hospital, and he could add little else to his report.
>
> The students tried to stick to their routine of history-taking: the pain in the patient's leg came out during a series of questions on the past history, but they failed to follow it up there and then. Later Dr. Shaw pointed out how they had missed this clue, and suggested that they should follow it up when it first appeared, instead of 'pressing on too methodically' with their history-taking routine. He added that his own routine was different from what they were relying on, as he normally kept the social and family history until last (rather than including it towards the beginning of the history).

Indetermination and Technicality

Hitherto I have been trying to indicate how clinical work is organised according to two complementary principles. On the one hand, the construction of teaching encounters can be seen as a device for the reproduction of knowledge of which the students and the clinicians can be sure and certain: that is, thereproduction of warranted clinical 'facts'. On the other hand, the production of such factual accounts depends upon personal 'experience' in interpreting the rules of clinical procedure. These twin aspects of the production and reproduction of medical knowledge have been examined by Jamous and Peloille (1970), who apply the two principles in a general account of occupations - based upon what they term the ratio between Indetermination and Technicality (abbreviated to I/T).[3]

By 'Technicality' is meant those aspects of professional work which are susceptible to codification in terms of explicit, public rules, procedures and techniques. The 'technical' aspects of professional work are those procedures which can (as least, hypothetically) be expressed in a precise list of unambiguous specifications. 'Indetermination', on the other hand, refers to those varieties of 'tacit' and private knowledge which are not susceptible to such specification. It is not made explicit, and remains untranslatable into precisely formulated rules or prescriptions.

There is therefore a difference between the mode of transmission of such types of knowledge, and in the relationship of the worker (or

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3. These comments on Jamous and Peloille are derived partly from Atkinson, Reid and Sheldrake (1973).

teacher) to the knowledge itself. In the case of 'technical' modes of knowledge, transmission could be based upon 'mechanical' reproduction, unaltered from generation to generation and from place to place. The sole criterion for success would be complete mastery of the relevant techniques, on the basis of rote learning, locomotor coordination and so on. Such cultural reproduction could be achieved in a completely 'impersonal' way. The transmission of 'indeterminate' means of production and knowledge would depend upon 'example', and the observation of a practitioner by the trainee. The notice would have to 'pick up' such knowledge rather than being taught it explicitly. Whereas 'technical' expertise could be defined in terms of public and impersonal criteria, 'indeterminate' expertise would depend upon less readily definable and accountable criteria. In Jamous and Peloille's terminology, indeterminate knowledge thus becomes located in personal attrbutes (or 'virtualities') of the producer himself - who is thus an 'owner' of the means of production and reproduction, rather than simply a user of them.

Now Jamous and Peloille do not claim that occupations can be classified or understood simply in terms of indetermination or technicality alone. Rather they argue that occupations are marked by a mixture of explicit and implicit expertise, by publicly available techniques and private 'rules of thumb'. What they employ is the <u>ratio</u> of Technicality to Indetermination as a device for the classification and understanding of occupations and their work. They express the core of their argument in this way:

> The I/T ratio expressed the possibility of transmitting, by means of apprenticeship, the mastery of intellectual or material instruments and to achieve a given result. This makes it possible to appreciate the limits of

> this transmissibility; i.e., the part played in the production process by 'means' that can be mastered in the form of rules (T), in proportion to the means that escape rules and, at a given historical moment, are attributed to virtualities of producers (I).

Although Jamous and Peloille begin their argument by setting aside any 'absolutist' definition of the 'professions' (e.g., such as 'trait' theories), implicitly, they use the I/T ratio to reintroduce 'the professions' in a somewhat different guise:

> The occupations and activities which concern us are the ones which lie on that sector of the dimension where the I/Ts are usually high. This sector does not include all occupations nor only the occupations usually called 'professions'.

Nevertheless, they confine their remarks to 'professions' and do not indicate what other occupations might fall on this 'sector'; it is also implied that a high I/T ratio is a common attribute of those occupations normally designated 'professional'.

There are a number of shortcomings in the approach advocated by Jamous and Peloille. They are highly ambivalent as to whether the indetermination and technicality to which they refer are to be seen as 'objective' attributes of an occupational group and their work, or whether they constitute claims professed by occupational groups - that is, they are occupational <u>ideologies</u>.

It is certainly the case that often the means of production are not conceived as rule-governed by practitioners themselves. They may attribute the success of colleagues (or themselves) as residing in a 'gift' or a 'knack' which they find inexplicable. However, this by no means precludes the possibility that such activities may in fact be

achieved through rules of which the practitioners are unaware (cf. Polanyi, 1958).

The central problem in Jamous and Peloille's use of the I/T ratio can be highlighted by reference to my previous comments on competent rule use. They are in error in trying to separate out the two aspects: all rule use implies an interpretive ability on the part of the rule-user, and such interpretive competence is not spelled out in the formulation of the rules itself.[4] However much the rules of procedure may be codified, the concrete application of the spirit of the rules depends upon 'tacit' understandings. What we refer to as a 'knack' or 'flair' or 'experience' refers to such competence in the application of interpretive procedures in the production and reproduction of knowledge. Hence Jamous and Peloille's dichotomy is a false one: what they treat as two independent factors in their I/T ratio are inextricably intertwined.

On the other hand, it is possible to consider that the notion of indetermination and technicality constitute a <u>rhetoric</u> in which are couched claims concerning professional work and expertise. From this point of view one might inspect how varieties of knowledge are warranted by practitioners by reference to the two principles of production and reproduction.

The example that Jamous and Peloille themselves address is an apposite one here. In their discussion of the history of the French Medical Corps, they show how debates over Indetermination and Technicality have marked historical periods of conflict and debate

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4. Bittner (1965) elaborates this point in the context of rule-use in bureaucracies. See also Zimmerman (1970).

within medicine - and between different segments of the profession. They discuss in particular the struggles for supremacy between the elite clinicians and the laboratory-based researchers at a period in the nineteenth century when 'la clinique' (Foucault, 1973) no longer embraced all available medical knowledge. What emerges is the way in which knowledge treated as 'indeterminate' is therefore part of the logic of professional segmentation.

The language of indetermination is a language of personal knowledge. The language of 'experience' is the common currency of a stratified and segmented occupation. It is congruent with segmentation since it relies on differences in personal experience, the distinctiveness of concrete occasions, of practice and the diversity of individual careers. 'Tacit knowledge depends upon the consensus of discrete groups with shared occupational ideologies and biographies. The rhetoric of 'experience' is also that of a stratified occupation. It emphasizes a view of socialization and expertise founded upon a lengthy period of induction in the 'mysteries' and arcane knowledge of the occupation: the accumulation of relevant experience is to be gained painstakingly in the course of a practitioner's unfolding career. Hence expertise is only to be guaranteed by seniority and length of 'experience'. However well-informed a young practitioner, and whatever the level of his technical learning, it still requires the accumulation of 'experience' to transform him into a fully competent practitioner. As Jamous and Peloille themselves emphasize, the 'apprenticeship' approach to socialization, and its reliance upon an apostolic transmission of knowledge from practitioner to acolyte, is predicated on the congruence between the stratification and segmentation of the profession. If the rhetoric of technicality is expressive of the common knowledge,

and publicly accountable knowledge-base of the profession, then that of 'indetermination' ensures the non-accountability and autonomy of the profession, and of segments within it.

In the course of clinical teaching, appeal is often made to 'experience', and 'judgement'. Such knowledge is treated as personal, and therefore as less technical or determinate, than the prescriptions of 'science' and the formulations of text-books. In contrast to the context-free, universalistic connotations of 'science', experience is a personal matter, dependent on the biography of the clinician. The quality of 'experience' gained depends, for example, on <u>where</u> one is trained and practised, <u>with whom</u> one has been a doctor, and <u>when</u>. In the course of his career, the competent clinician amasses a stock of relevant experience, upon which he can draw.

The following extracts from my field-notes illustrate how clinicians may make appeals to experience in decision-making on diagnosis and patient-management. For instance, in the first extract, the teaching physician alerts thestudents to personal experience in therapy - and how the locale of one's treatment and practice is a major factor in clinicians' adoption of therapeutic measures.

> They discussed the problems of high blood pressure and reducing it. Dr. Cowan told us that on admission, the patient had a palpable fourth heart sound, and they had beenafraid he'd go into failure. 'The question is', he said, 'What drug do you use to reduce blood pressure?' The students suggested a number of possible treatments, and Dr. Cowan commented, 'You get used to one drug. Propranadol is used a lot in Edinburgh'.

The same consideration is apparent in the consultant surgeon's pronouncement in the following extract. The remarks were noted in a

tutorial class on breast cancer. The surgeon had explained to the clinique the difference between 'simple' and 'radical' mastectomies. Returning to the patient who had provided the starting point for the more general discussion, the surgeon told us,

> 'In this city, she'd have a simple mastectomy; in Edinburgh it's accepted that most units do a simple mastectomy....'

In both of these illustrations, then, appeal is made to 'Edinburgh' in recommending choices of treatment. 'The way things are done here' is a common enough appeal to local experience and ideology in most processes of socialization, including socialization into organisations and occupational groups. In the second example, the surgeon also draws attention to a further dimension of segmentation: 'most' units do a simple mastectomy, but it is not a categorical statement, and there is the possibility of differences in approach between units within the same city. The autonomy or practitioners allows for the development of different treatments of choice in different sectors of the same medical school.

The point was made in a very similar way in the course of another tutorial on breast cancer in another clinique. The discussion begins by establishing a 'reasonable inference' on the basis of routine course of treatment, and then goes on to establish evidence for the 'normality of this diagnosis. The discussion then proceeds to areas where there may be differences of opinion among surgeons as to the most appropriate course of action.

> Dr. Field was going through the case notes of a patient, who was a woman of sixty five and who had had a mastectomy and radiotherapy in 1955.
>
> Dr. Field commented that from the treatment he

inferred that she had had malignancy - carcinoma of the breast.

'Is fifty a common time to get carcinoma of the breast?' he asked, 'Is is late, is it early, or what?'

Walker replied that it was a 'normal' age for breast cancer.

Dr. Field agreed that it was 'about normal' - being most common among women aged fifty to seventy. 'In fact', he added, 'It is very rare for a woman under forty to get carcinoma of the breast'.

Dr. Field then went on to ask about different types of mastectomy - radical and simple operations. He went on to define what he described as the 'classical description' of simple and radical mastectomies. He continued by describing a list of possible operations that may be performed.

Dr. Field then pointed out that there were 'different styles' in such operations (unlike, he said, operations for the appendix or gall bladder).
Things were done differently in London, New York and Melbourne. He asked the students why they thought this might be. One of them suggested that it was because no-one really knows what is the best treatment.

'No-one really knows', the consultant echoed, 'And people do what their teachers told them'. And he went on, 'What should we do as doctors if we don't know what to do?'
'Have a go', one of the students volunteered.
'Have a go! Is that why you did three years science?'
'Well, get someone else to do the research'.
'Get someone else to do the research! What's wrong with you?' The consultant went on to say that there was no substitute for careful clinical trials, and he wished that every student went away from Edinburgh with that message. Too many doctors, he added, were content to do what has always been done.

Here of course the consultant introduces the topic of local tradition in order to condemn it, by reference to the need for definitive, agreed 'scientific' knowledge. Yet by implication he acknowledges that personal experience is, in practice, the 'substitute' for such knowledge. The student's suggestion that one should 'have a go' comes close to the truth in expressing what is often the basis for much clinical procedure - based upon relatively untried approaches, but hallowed by custom.

Pharmacology is a topic where 'experience' is frequently drawn on in justifying or condemning the use of particular drugs or dosages. In the following field note, the physician refers to fashion and personal experience in decision-making in this field.

> The clinique then proceeded to a discussion of therapy. Dr. Mayo asked what drugs you would use to treat rheumatoid arthritis. Tim Watson replied, 'Anti-inflammatory drugs - aspirin'. Dr. Mayo agreed that aspirin was still the best treatment, provided it relieves the pain sufficiently. He went on to comment on some other drugs which were, as he put it, 'in vogue'; but which can produce unpleasant side effects.
>
> Dr. Mayo went on to comment that one needs to monitor blood levels: in aspirin the upper limit of dosage was indicated by the patient's experiencing 'ringing in the ears'. He pointed out that it was not always possible to get blood levels monitored, and so you have to 'use your own judgement'. And, he added, 'you need to use drugs you are used to'.

The 'empirical' basis of some therapeutic procedures is frequently repeated, and contrasted with the claims of 'scientific' knowledge. This is again illustrated in the following case, where the 'do-or-die' aspect of the treatment offered threw into relief the practical need for action, in contrast to the niceties of

'theoretical' pharmacology.

Dr. Frewin began the session in the teaching-room. He told us that he was going to show us a patient who was very ill indeed; but first he wanted to discuss some aspects of the case.

The teaching that followed was centred mainly on therapeutics and was largely of a highly technical nature. For the most part Dr. Frewin simply lectured on the group, occasionally asking them questions. (The case was of such gravity and complexity that it appeared to hold the students' interest and attention, despite their relative lack of participation).

The case that Dr. Frewin was describing concerned a woman who had come in in a state of collapse and deep shock - no discernable pulse, no recordable blood pressure, a much reduced temperature - and probably suffering from bacteriogenic shock.

Dr. Frewin told them that the treatment of the patient had been 'an exercise in brinkmanship' and a 'do or die' operation. As part of the treatment, they had given the patient massive doses of corticosteroids, which, Dr. Frewin said, had little relationship to the normal pharmacological doses which the students would be familiar with. Dr. Frewin stressed that much of the therapeutic method they had used had been 'very empirical' in nature. They were based to a considerable extent on experimental findings. It was, Dr. Frewin said, 'largely a matter of experience'.

....

One of the students asked Dr. Frewin why the clinicians had in this case picked on a specific drug as an alpha-blocker. The doctor replied that it was simply because he himself had had some experience of using it in this way. He emphasized that the students shouldn't go away with the idea

that what he had described was the treatment for something. All that could be said was that some of these therapeutic measures had been used with some success in the past. In treating this patient they had also used penicillin in huge doses: this, he said, normally attacks only gram-positive bacteria, but in such large quanitties, it didn't act as one was taught, and gram-negative organisms - normally considered penicillin-resistant - became sensitive to the drug.

> After a lengthy presentation of the therapy that had been undertaken, Dr. Frewin took us to see the patient, for just a minute or two. She was lying in one of the single bed side-wards. She was looking very ill, and had developed a number of unpleasant sores round her mouth and under her chin. We were told that thee had appeared as side-effects of the drug treatment she has been receiving.

This selective report of the teaching session shows quite clearly how 'experience' is employed as a vocabulary of legitimation in medical action, where the practical implementation fo medical knowledge in an abnormal case and under extreme consitions is of paramount concern. What is 'scientifically' warranted, and what one is taught are treated as appropriate under 'normal' circumstances. But experienced competence in the use of therapeutic technique is seen to depend upon the ability to interpret the nature of the intent of theory in such a way as to produce the 'normal' effect of therapy (cure or palliation) in circumstances which are not explicitly provided for in the theoretical formulations of 'text-book' knowledge.

Similarly, in the following extract, the physician refers to the possibilities of action by the ad hoc use of therapeutic techniques, as a possible departure from established procedure.

> Dr. Rosen took us back to the teaching room, and told us that the patient we had just seen had multiple myeloma. He told us that there was no chance of a cure, but that they were about to

embark on a course of palliative treatment. There were two drugs that they were going to use, both in fairly massive doses. He said that they were advised to treat patients of this sort for one month on the drugs, and one month off - to give the bone marrow a chance to recuperate. However, he added, they might find it better to administer the drugs one week on and one week off, or two weeks and two weeks respectively. 'One has to play it by ear', he concluded.

The warrant of 'experience' is often referred to as a source of certainty is trust in the face of the vagaries of fashion and novelty. This too can be illustrated from the field of pharmaceuticals. Since the 'therapeutic revolution' in the 1930s, the number of different pharmaceutical preparations has increased exponentially (Norton, 19 .) Doctors are being introduced to a vast range of medications for illnesses of all sorts. Many of the preparations that are taken up and widely used gain their popularity partly on the basis of 'fashion' (cf. e.g., Coleman et al., 1966). Whilst 'fashion' and 'experience' can both be contrasted to 'science' they are also themselves contrasted. The dictates of 'fashion' remain untried by the warrant of 'science' (e.g., controlled trials over a long period) or of carefully amassed personal experience in clinical practice. This can be illustrated from the following notes, taken from a tutorial on therapeutics, from Dr. Burton's clinique.

> Dr. Ryan asked the students what infections are commonly seen on the wards. (One of the students, sotto voce, suggested Dr. Burton). Between them the students variously offered a list of infectious diseases - pneumonia, T.B., chronic bronchitis, etc. Dr. Ryan himself added syphilis and gonorrhoea to the list.

> Something that everybody found amusing was Dr. Ryan's description of an occasion when there had been an infection endemic in the ward he had worked in previously (not in Edinburgh), and they had been forced to close the ward for a month.
>
> Dr. Ryan asked how one would treat such an infection. Donald Thomas suggested 'Septrin'. Asked why, he said he had been told it was the 'in thing'. Dr. Ryan then asked if he had also been told about the complications. Amidst some hilarity, Dr. Ryan described how he had had three cases in one week of a syndrome (which proved fatal) from the use of Septrin. He went on to say, 'Your own experience colours your likes and dislikes in drugs'. He went on to say that he had also had fatalities with another drug, because at that time they were being recommended to dialyse their patients, and they had developed electrolyte disorders.

In this example, then, the student can use his knowledge concerning fashions in pharmacology as a resource in his search for an appropriate answer to the physician's questioning. However, in reply to the student's appeal to 'fashion', the teaching clinician counters with his own invocation of 'experience'. He shows how, despite the possible fashion for a particular drug, he himself remains sceptical on the basis of his own personal 'experience' in the use of certain forms of treatment. In this instance, he draws attention to the side-effects of the drugs in question - in producing iatrogenic disorders. Such complications reflect the concrete, practical use of chemotherapy, as opposed to the 'theoretical' effects of drugs in treating specific disorders.

The importance of 'experience' and personal knowledge has been noted before. Becker and the other authors of Boys in White note the importance of 'experience' to students and teachers alike. They identify a group perspective based upon this notion, and they take the 'clinical experience perspective' to refer to 'actual experience in dealing with patients and disease...'. As they comment, it is often used to contrast with 'theoretical' and 'scientific' knowledge:

> ... even though it substitutes for scientifically cerified knowledge, it can be used to legitimate a choice of procedures for a patient's treatment and cen even be used to rule out use of some procedures that have been scientifically established.
>
> (Becker et al., 1961, p.225).

This important place that is reserved for 'experience' has often been linked with the constellation of factors referred to as 'uncertainty'. Freidson (1970) provides a classic formulation. He summarises the Kansas evidence, and then continues,

> ... the practitioner is very prone to emphasise the idea of indeterminacy or uncertainty, not the idea of regularity or of lawful, scientific behaviour. Whether or not that idea faithfully respresents actual deficiencies in available knowledge or technique it does provide the practitioner with a psychological ground from which to justify his pragmatic emphasis on firsthand experience.

Here Freidson emphasizes uncertainty of knowledge, suggesting that personal knowledge and experience are to be contrasted with notions of regularity and predictability. He also tends to account for this at the level of the psychology of the individual practitioner.

Fox (1957) takes a similar view in her discussion of 'training for uncertainty'. Like Freidson, she tends to treat it as a psychological problem that medical students need to come to terms with. I have already suggested one way in which such formulations may be inadequate. The idea of 'uncertainty' or 'indetermination' needs to be seen not simply as the outcome of individual psychology, but must also be seen in the context of professional segmentation, and as a reflection of the conditions of autonomy on the part of practitioners. Further, in both the formulations of the 'clinical mentality' referred to above, the theme of 'training for uncertainty' has been over-stressed. 'Training for dogmatism' has been almost entirely overlooked.

'Dogmatism' is by no means the opposite of personal knowledge; it is part and parcel of the same view of personal 'experience'. The clinician who appeals to his personal knowledge does so not by reference to his uncertainty, nor the uncertainty of his colleagues. Rather, he bases his actions and decisions on what is taken as a bedrock - the certainty - of direct experience. The appeal to 'experience' is (pace Freidson) taken to provide knowledge of regularity and stability. The clinician operates in a state of personal certainty, in the sure warrant of his own personal experience.

His justification is that referred to by Foucault (1973, p.54). It can be paraphrased thus:

> ....the patient's bedside has always been a place of constant, stable experience, in contrast to theories and systems, which have been in perpetual change and have masked beneath their speculation the purity of clinical evidence.

Hence the appeal to 'experience' is taken to provide knowledge of regularity and stability; but this order is taken to be inherent in the phenomena, and open to the 'gaze', rather than risiding in systems of theory and fashion. 'The clinic' is therefore taken to provide the incontrovertible demonstrations of reality in direct perception of its regularities. The clinician is not therefore operating in a state of 'uncertainty', but rather operating on the 'sure' warrant of his stock of experience. In this way, the students' exposure to this 'real' world of medicine reproduces the certainty of personal knowledge.

Fox does make passing reference to 'certainty' in clinical instruction; she points out how students embarking on their slinical work find a degree of certainty in the context of practical 'reality':

> In the atmosphere of the 'clinical situation', a student can feel his medical knowledge take root. The chance to see many of the things he has 'read about' reinforces what he has previously learned; and the fact that 'there is a patient lying there in the bed proves' to him that what he is currently learning is 'really important'.

In this context, the management of clinical teaching can engender 'certainty', Fox argues, especially during the early period of clinical work:

> It results... from the fact that in the third year he (the student) is relatively insulated from some of the diagnostic and therapeutic uncertainties he will encounter later. For one thing, the acute illnesses he sees on the wards and the explicit problems he handles in the clinics are often 'classic' or so manifest that he says they seem almost 'obvious' to him.

In just the way described by Fox, the Edinburgh fourth-year clinical teaching that I have been discussing, engenders similar personal 'experience'. The management of the bedside encounter, the production of 'normal' illness make 'obvious' and explicit the manifestations of illness. The conduct of clinical instruction constantly reaffirms the certainty of personal knowledge and experience, and the primacy of bedside experience in warranting medical knowledge.