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Teaching Language as Metaphor: the potential of current research into metaphor and cognition for classroom practice

Randal Holme

**Thesis submitted as a partial fulfilment of the requirements
for the degree of Doctor of Philosophy**

**University of Durham
School of Education**

2001



17 SEP 2002

Declaration

I declare that this thesis, which I submit for the degree of Doctor of Philosophy at the University of Durham, is my own work and is not the same as any which has previously been submitted for a degree in this or another university.

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Abstract

Recent developments in cognitive linguistics have revealed how abstract meaning in language is shaped by bodily experience. We understand and express such concepts as time, causation, direction or love through metaphors that are shaped out of our sense of ourselves as embodied creatures (Lakoff 1987, Johnson 1989, 1991, 1992, 1993). The diachronic analysis of syntax also shows how metaphor shifts lexical meaning towards grammatical meaning (Heine 1997). For example, in English and other Indo-European languages, we use what Heine (1993) identifies as a propositional schema of possession to express how in having taken hold of an action, we have completed it. Thus we grammaticalise a possessive 'have' (haber, avoir, etc.) or 'ter' (hold in Portuguese) to express an immediate past, or finally, as in modern French, the past itself.

Applied linguists are now asking how this cognitivist re-examination of the nature of meaning creation should impact upon language teaching (e.g. Low 1988, Lindstromberg 1991, Dudley Evans and St John 1998, and Boers 2000). One suggestion is that conceptual metaphors might prove an effective mechanism to help learners of specialist language group some forms of specialist lexis, using a conceptual metaphor such as 'cash is liquid', for example, to help students understand the language of finance, clustering and organising such terms as 'capital liquidity' and 'company floatation'.

This thesis carries forward this exploration in a more comprehensive manner. It first examines the nature of metaphor in order to produce a useable construct. This construct differs from some mainstream cognitive views (e.g. Gibbs 1994 and Lakoff and Johnson 1999) in that it follows Glucksberg and Keysar (1993) in relating metaphor construction to class inclusion, and Glucksberg and McClone (1999) in affording similarity a role in metaphor interpretation. It treats metaphor as holding together three aspects of pedagogy: the nature of what is taught, the mechanisms through which it is learnt, and the learner's affective relationship to both. The picture of language and the language learner's mind that is produced rejects notions of adult acquisition and focuses upon the role of conscious learning through metaphor-based techniques. In the role of a participant observer, the author recounts how they implemented this in the classroom.

Teaching Language as Metaphor

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Teaching Language as Metaphor

1 Introduction

1.1 The Objectives of the Thesis

The objectives of this thesis are straightforward but broad. My aim is to map out the implications for language teaching of research into metaphor and the related area of cognitive linguistics. I will do this with a theoretical study that will sketch out the principles of a cognitive approach to language teaching. I will ground the principles of this approach in a description of techniques as they have been developed out of the classroom context.

In order to achieve the goals of this thesis, I will first provide the reader with a brief summary of how the above view of metaphor has come to take its present form. As is common, this view will be called 'cognitive' because of its fundamental perception that language processing cannot be separated from the operations of cognition and that the structures of language reflect those of cognition as these are manifest in metaphor.

Second, I will enumerate the ways in which the recent understanding of the importance of metaphor must change our view of how meaning is constructed in language. This change affects lexical and grammatical meaning.

Third, I will state how the metaphorical nature of language reflects the metaphorical nature of thought. Metaphor will not be treated as a means through which language represents thought but as a process of mind. In short, metaphor will not be seen as representing thought but as a facet of it.

Fourth, I will claim that in this wider capacity of metaphor as thought we can include an ability to learn. Metaphor allows us to obtain new knowledge. I will therefore argue that there is some coincidence between the metaphorical structure of language

and learning as it presupposes the construction of knowledge as a metaphor-making process. The nature of a language is, from one perspective, a reflection of our capacity to learn or to acquire it. We can therefore start to explore how the nature of what has to be learnt can be made friendly to the processes through which it has to be learnt. Although some pedagogical strategies make an intuitive appeal to this synergy between the nature of language and the nature of the learning process, conventional communicative methodology treats the description of learning theory and the description of language almost as separate disciplines. There are theories that will explain the nature of what is to be learnt and theories that explain the process through which it will be learnt. My objective is to show how these theories are in some sense a reflection of each other. My question is whether we cannot help the student by asking them to deploy in learning, strategies that have collectively been deployed over centuries to build what has to be learnt. These strategies can be broadly collected under the name of 'metaphor'.

1.2 The Evolution of Metaphor Theory

1.2.1 Early philosophical perspectives

Metaphor, as a facet of language and thought, is currently a topic of extensive research interest. The interest cuts across the fields of philosophy, linguistics, psychology, artificial intelligence, education and literary criticism. The emerging discipline of cognitive science, which combines the interests of many of these fields, has identified metaphor as a key area of enquiry and implicated it as crucial to the nature of thought.

Although this exponential increase in interest dates largely from the late 1970s, it would be wrong to imagine that metaphor excited negligible concern prior to this. The classical interest in rhetoric and the associated 'art of memory' charted by Yates (1966) fostered a concern for metaphor as a device able to persuade, to move the audience and as a mnemonic to help the speaker organise their discourse. Studies such as those of Gibbs (1994) make frequent reference to Aristotle's *Poetics* as seminal to our interest in metaphor. However, Aristotle is often wrongly identified with a view of metaphor that sees it largely as a decorative device. Mahon (1999) has pointed out that the *Poetics* may tend to over-associate Aristotle with the more general mistrust of figurative language that has become a hallmark of the Cartesian Philosophical tradition. Aristotle's *Rhetoric* provides a more balanced account.

Aristotle has also been called the instigator of what is now known as the comparative theory of metaphor (Gibbs 1994). According to this theory, a metaphor is a comparison between two terms that is made in order to explore the nature of one. Thus, to say that 'love is a rose' is to compare an emotion, 'love', to a flower possessed of a seductive scent and form that is protected by thorns. 'Love' can thus be expressed as beautiful, seductive and dangerous by being compared to a flower that has the same properties.

Aristotle also touches upon the capacity of metaphor to name what is not named, or to serve the seemingly 'inveterate human urge' to 'to try to articulate what is as yet unarticulated' (Cooper 1993: 40). He does this in his famous example of how the sun

'casting forth its rays' has no name, unlike 'casting forth of seed' which is called sowing, hence we may come to speak of the sun 'sowing its flames' (Derrida 1972). Aristotle can be associated with two key attributes of metaphor, the transformation of a conventional meaning and the use of that transformation to represent a phenomenon which may be otherwise unnamed (Ricoeur 1975: 104).

If Aristotle's approach to metaphor was in fact ambiguous, the Cartesian tradition in Western philosophy has been less equivocal. Cartesian thought proceeds on the assumption that the meaning of words can be fixed in the way that the value of a mathematical symbol, 'x', can be fixed in the premise of an argument, as ' $x = 2$ ' for example. The problem is that metaphor, as Aristotle observed, is partially about how words can change meaning. Metaphor thus holds out the prospect that an argument may try to secure meanings, which will be altered by the unfolding of that argument (Gibbs 1994). Metaphor threatens the clarity of sign-meaning correspondences.

Another problem for the Cartesian tradition is that metaphor threatens the objectivity of rational argument with the involuntary interference of the mind that argues. Metaphor endows mind with the capacity to disrupt any attempt to give a sign an inalienable correspondence to a phenomenon in the world. In view of this, it is entirely consistent that the seventeenth century thinker, Thomas Hobbes (1983), viewed metaphor as 'degenerate'. Such a mistrust also finds a later expression in what Foucault (1974) characterised as the neo-classical aspiration to a univocal discourse. The univocal ideal must be wary of metaphor as a device that will unfix words from the items to which they should always refer. Metaphor dispenses with any possibility of the text as simply bearing the imprint of events.

Such mistrust endured. Writing a century later, Hegel felt bound to distinguish between 'dead' and 'live' metaphor (Hegel 1931). Dead metaphor will often be unrecognised, as when 'we pursue an interest', forgetting that interests are incapable of movement and not susceptible to sudden flight. Live metaphor declares its unusual and often poetic nature as when we say 'Juliet is the sun' while knowing she cannot be. Yet Hegel's interest was to accommodate metaphor within thought. He wanted to counter the historical instability of meaning that metaphor brought to language and its

concomitant threat to metaphysical argument; hence his assertion that ‘dead metaphor’ has its meaning secured by the passage of history (Cooper 1986).

However, such scientific developments as the formulation of Heisenberg’s (1989) ‘Uncertainty Principle’ and the accompanying understanding of Quantum Physics now make it increasingly difficult to perceive the world as a set of phenomena of fixed and certain identity that can have a secure representation in language. The realisation that the trajectory of an electron cannot be predicted pitches reality into a state where ‘demarcations’ are uncertain and the identity of objects is layered like a thin shell around the flux that defines their fundamental nature. In keeping with Quantum theory and, acting as an expression of it, a metaphor posits an act of observer interference in how we represent the core identities of objects and actions.

1.2.2 The rehabilitation of metaphor

Richards (1936) expressed a changing perception of scientific rationalism in *The Philosophy of Rhetoric*, one of the 20th century’s first significant studies of metaphor. Richards’ contribution was to see metaphor as an ‘omniscient principle of language’ rather than as a marginal construct (1936: 92). Richards’ other enduring contribution was his perception that a metaphor was constructed out of a tension between two terms, the tenor and the vehicle. In a metaphor such as the following:

1 Life is a game of chess

‘life’ is ‘the tenor’, or what the metaphor is primarily about, and ‘a game of chess’ is ‘the vehicle’, or the term that carries metaphor’s descriptive force. The trope, or the metaphor in this case, arises from the tension between the conceptual differences in the meanings of these two parts. Thus, in the case of sentence 1, above, the fundamental difference between ‘life’ and a ‘chess-game’, the tenor and the vehicle, is what allows metaphor to draw attention to the hidden attributes of the terms with which it deals.

Richards (1936) revived metaphor as a topic fit for enduring attention and also created a consensus as to how it should be described in language. Recent treatments of metaphor express more awareness of the frequency with which it occurs in language, but have differed greatly according to whether they see the trope as a linguistic aberration, a surface rhetorical feature, a revealing attribute of language that demands description or a fundamental feature of knowledge construction.

Black (1962 and 1979) treated metaphor as a linguistic aberration while remaining in no doubt as to its importance and centrality. Thus, he asserts that a metaphor such as 1, above, is different from a literal statement because the topic, 'life', is not the phenomenon that it is said to be. 'Life' does not equal 'a chess game.' Black's other main contribution, is the interactional theory of metaphor (ibid). This is an important and enduring theory of metaphor and I will discuss it in the next section.

1.2.3 Interactional theory

Interactional theory sees a metaphor as being about two subjects: 'a primary' and 'a secondary' one. The adoption of the idea of two subjects raises one of the key tenets of the theory. The tenet is the importance of both parts of the metaphor in constructing its meaning. The two subjects interact in order to extract from each other the compatible meanings on which the metaphor is based.. For example, let us take the metaphor 2, below:

2 Women are angels wooing (Shakespeare, Troilus and Cressida)

Basically, both the terms, 'angels' and 'women who are being wooed' carry what Aristotle called endoxa, or 'current opinions' shared by the speech community as to the possible meanings of a given term (Black 1979: 28). For example, no speech community at any time has conceived of women in courtship as being winged creatures who may literally take flight, or, in other words, as 'angels'. However, the attention paid to women during courtship means that they attract unusual reverence. As sacred beings, angels are also revered, at least according to the endoxa of the Christian, Muslim and Judaic speech communities. Therefore women wooing who are

angels are not winged beings because they are not perceived that way. A primary subject, 'women wooing' fails to extract a key aspect of the secondary one, 'angels as winged beings' and leaves others, 'reverence and beauty.' Therefore we can conclude that Shakespeare intends that when women are being courted, men treat them as objects of great beauty and reverence.

1.2.3.1 Interactional theory: formal versions

Black's theory has some more recent support. For example, in his study of pictorial metaphor in advertising, Forceville (1995) applies interactional theory to an analysis of visual imagery as it is used to produce a marketing message. The theory has also been developed in several more formal strands of analysis. Cohen (1993) attempted to accommodate metaphor within a view of meaning still largely based on componential analysis. According to a componential view, a given meaning can be logically derived from other units. For example, an angel has such components as +male and +unmarried. Cohen's view is that the topic and vehicle of a metaphor will interact in a way where some of the components of the topic will cancel some of those of the vehicle, leaving intact a common set of meanings that the metaphor is created in order to identify. Thus, to simplify somewhat, in 2, above, (women are angels wooing) we could assume that the '+male' of the angel and its '+winged-flight' are cancelled by the '+female' and '+human' of the 'women wooing' in order to leave the '+sacred' which is the meaning that the poet perhaps seeks.

The example 2, above, does show up some of the difficulties of this analysis. Angels are not empirically verifiable and therefore their features cannot be logically deduced. Also 'sanctity' is arguably an attribute with which a phenomenon is endowed by the human mind rather than being one that things will intrinsically possess. We describe women as angels in order to confer angelic qualities upon them, not to discover those they already possess. Interactional theory forces the conclusion that metaphors are finally uninformative, telling us what we already know.

1.2.3.2 Interactional theory: dynamic type hierarchy.

Way (1994) also explores a more elaborate view of 'feature cancellation' as a method to model metaphor within the artificial representation of intelligence. Way's (1994: 122-149) approach is to model metaphors with the 'dynamic type hierarchy theory' introduced by Kelly and Keil (1987). Dynamic type hierarchy theory models the key features of a given term as a hierarchy. Thus in 3, below, a term such as 'car' might have the very general property of being 'inanimate'. Further up the hierarchy, 'car' might have the more specific property of being a vehicle and further still, the highly specific property of being 'a car' rather than a 'truck'.

3 The car is thirsty (Way 1994)

The adjective 'thirsty', on the other hand will have the property of possessing the more general property of 'a need'. Needs, however, are an expression of consciousness and thus a function of an animate phenomenon which cannot strictly transfer to an inanimate one such as a vehicle. Then, moving up the hierarchy to a greater level of generality, we will understand that a need is a 'requirement'. Requirements are not the product of only an animate consciousness; they are thus general enough to stand as a property of both cars and thirsty creatures. From this discovery of one common property we can move to that of others. The common properties produce 'the supertype'. The supertype contains the common properties for 'thirst' and 'car' that allow the first term to be an appropriate descriptor of the second. This would be 'mobile entities which require liquids' since animals and cars share these properties.

Way's argument is that the metaphor can be interpreted by working up the dynamic type hierarchy of the domains of the topic and vehicle until we find common attributes between each. Thus the animate finds common features with the inanimate, in this case mobility and a need for liquids in order to sustain the same. In order to create a set of common features, the ones that are not common, such as 'vehicles' and 'animals' are masked.

1.2.3.3 Interactional theory: isomorphism

Black (1979) acknowledges his debt to Richards' (1936) tension theory in that what he terms the primary and secondary subjects achieve an isomorphic relationship within the frame of their basic dissimilarity. An isomorphic relationship is one such as that which pertains between 'temperature' and 'the mercury in a thermometer'. These phenomena are entirely different. One is abstract and the other a physical entity. Yet the behaviour of one clearly reflects the behaviour of the other, finding grounds for undeniable compatibility in their difference.

Ricoeur (1975) also retained something of Richards' (1936) tension theory while affording space to an Aristotelian notion of substitution within his theory. As stated, Aristotle perceived metaphor as having a dual function, that of ornamentation and substitution. The substitution was for a meaning that was unknown with a known one that was in some sense comparable to it, 'pour combler une vide semantique' (fill a semantic gap) in other words (Ibid: 103). For Ricoeur, the substitution occurs at a semiotic level since it is about the sign or word attaching itself to a new meaning. On the other hand, the tension is at the level of the discourse or of the semantics arising from it. The tension must be at this level because it is about how two terms are held together by a syntactic construction. The tension of the metaphor in discourse means that 'its most intimate abode' is 'the copula', which holds its two sides together and forces them apart through a simultaneous signification of 'is not' and 'is' (Lechner 1978). The copula keeps the two aspects of a metaphor in being, proffering an act of substitution by similarity on the one hand, while disallowing it with its repulsion between unlike poles on the other. The tension mitigates against the possibility of a metaphor ever entirely taking over a meaning by being entirely similar to it and thus of lapsing into a naïve act of paraphrase.

1.2.4 Jakobson and the combinative versus selective theory of metaphor and metonymy

Ricoeur shows the influence of another notable thinker on the subject, Roman Jakobson (Lechner 1978). Jakobson and Halle (1956) and Jakobson (1971) had also

sought to identify the combinative and substitutive features of language as being represented in the way we construct figures of speech. The combinative function can be found in the way a word combines meanings and is summarised by another trope, or figure of speech, the metonym. A metonym may represent the entirety of an object through a part, such as when we say 'sail' and mean 'ship.' It may also represent an idea or organisation through its physical or spatial location as in 4, below:

4 This is London calling

meaning a broadcaster who is located in London.

Jakobson's other language function can be understood as substitutive and this is summarised by metaphor because of how it works by substituting one meaning for another. Language thus exists between two contrary 'poles', the combinative, or syntagmatic which is summarised in metonymy, and the substitutive, or paradigmatic where metaphor exchanges one meaning for another.

1.2.5 Grammatical metaphor in systemic functional linguistics

Halliday (1985, 1993, 1994 and 2000) and Halliday and Hassan (1989) have also linked figurative language to grammar with a concept called grammatical metaphor. The Hallidayan analysis of language links the description of grammatical structure to the type of meaning that a language user wishes to communicate. Thus, a basic part of speech such as a verb will be linked to the expression of an action and a noun to the expression of a thing. Verbs that express actions are congruent but when nouns express actions as in 5, below, they are not:

5 The removal of the hatch found no survivors

A process, 'opening' is no longer expressed by a verb. This provides a definition of a grammatical metaphor as 'the expression of a meaning through a lexico-grammatical form which originally evolved to express a different kind of meaning' (Thompson 1996).

Halliday's analysis of grammar according to communicative function is on the periphery of what one might normally construe as formal linguistic analysis. His interest in relating meaning to the rhetorical structure of text means that his analysis should not be altogether distanced from the rhetorical tradition in which thinkers such as Richards, Black and Ricoeur are operating. However, it is interesting, that, in his notion of congruent meaning, Halliday keeps faith with formal linguists by recognising that lying behind metaphor is what Levin (1993: 119) describes as a meaning that finally constitutes an 'unmetaphorical' or 'literal' paraphrase.

1.2.6 Metaphor and formal linguistic analysis

The post-war traditions of formal linguistics and logical positivism have been largely motivated by an interest in constructing stable meanings. One of the most influential exponents of logical positivism, A. J. Ayer (1936), argued for a deductive structure that would exclude metaphysical or transcendental meanings. Both the traditions of truth-condition semantics and generative linguistics have found metaphor problematic and thus have sought to marginalise it. In this endeavour, they have been true to their Cartesian roots. A formal semantic analysis, such as that of Katz and Fodor (1963), has attempted to relate meaning back to a linguistic or semantic competence and thus to separate it from other facets of knowledge such as background experience or context.

1.2.6.1 Metaphor and formal linguistic analysis: metaphor and truth conditional meaning

In the formalist vein, meaning had finally to be 'truth conditional.' This is according to Tarski's (1956) concept of a truth condition where 'a house was white, if and only if a house was white'. A statement that could not be validated against these conditions had no place in logical argument. Thus, 'a house is white' constitutes a literal statement if it is 'white' but might start to deviate from the same if it were actually a pale grey, carrying the meaning towards a metaphorical realm. The application of

Tarskian theory results in the placing of metaphor or any figurative use of language outside the zone of formal linguistic enquiry (e.g. Davidson 1979, Rorty 1989, Sadock 1993).

Sadock's view is that metaphor is meaningful by reference to a context that is outside the timeframe in which a statement is constructed. It may gather its meaning from the historical context of a term. Metaphor cannot constitute a subject of study in the discipline of synchronic linguistics. However, Sadock (1993: 57) remains troubled by how metaphor shows a language such as English to be in 'flux'. Relatedly, he acknowledges it to be one of the keys to language change. Metaphor threatens the assumptions of 'formal linguistics' because it shows that meaning can be dependent on factors other than the selection of a particular form.

1.2.6.2 Metaphor and formal linguistic analysis: Searle's criticisms of truth-conditional approaches to meaning

Searle (1978 and 1993) argues that we should qualify the extent to which the truth conditions of a sentence determine its proper meaning. He points out how in the case of the two sentences, 6 and 7, below, we know immediately the truth conditions of 6 but would have considerable difficulty with 7.

6 The fly is on the ceiling

7 The cat is on the ceiling (Searle: 1993: 86)

8 Sam is a pig (Searle: 1993: 105)

This difference does not relate to the actual language of these statements but to how easily our normal 'background' knowledge can be applied to them. In the case of a metaphor such as sentence 8, above, we know immediately that what Searle calls the sentence meaning and the utterance meaning do not coincide, 'Sam' is a 'human', not the animal he is asserted to be. However, as 7 shows, the need to go outside a normal factual frame of reference in order to find a meaning is not just peculiar to metaphor. The 'cat' in 7 may actually be on the ceiling because a cat hater has splattered it over the plasterwork. We just have to work harder and through a longer chain of inferences

to understand that. In 8, we know that Sam is a human being not an animal just as we know that cats do not normally adhere to ceilings. Just as we have to search our background knowledge in order to grasp the adhesive properties of a splattered cat so do we to evoke the folk wisdom about pigs when we realise that Sam is actually human. In short, background knowledge plays a crucial role in our full understanding of even literal utterances and this understanding must be extended in order to cope with metaphorical expressions.

1.2.6.3 Metaphor and formal linguistic analysis: metaphor and semantic field theory

Kittay (1987) rejected the consignment of metaphor to a pragmatic domain or to an issue of background knowledge as in Searle's analysis. Like Cohen (1993) and Way (1994) she made a bold and well-argued attempt to reintegrate metaphor into a more formal mode of linguistic analysis by using semantic field theory. Semantic field analysis will typically examine a word with a field consisting of other words in a typical subject area. Thus, in Kroeber's (1909) well-known study of kinship, the meaning of one kinship term, for example 'aunt' can be determined through its insertion into a field of others such as 'brother, uncle, sister, husband etc'. The location of a term within a field will provide us with its literal meaning. In this way, we know what 'mother' means because of the surrounding field of 'child, father, etc'. A meaning will become metaphorical when the relations between items in one semantic field are introduced into another. If I extend Kroeber's example, the relationship between mother and child is one of propagation. In Saddam Hussein's statement about 'the mother of all battles,' the mother's literal meaning has the relationship of propagation and thus a sense of source or genetic origin to a child. One can see that this part of the field is carried across to the threatened conflict. The battle as a 'mother' will propagate other battles reducing them to the status of its diminutive progeny.

1.2.6.4 Metaphor and formal linguistic analysis: metaphor and generative linguistics

Generative linguists have also found metaphor difficult to accommodate. The primary interest of 'the generative enterprise' is in treating words as entities with clear semantic demarcations. An ideal instance would be a case where a word can be said to denote one specific meaning in the way that a proper name denotes one specific person and that person only. Thus, words should be represented as 'bundles of necessary and sufficient features' (Taylor 1995) that amount to the components of phrases which are allotted a given position by syntax. A word requires features that make it compatible with the position that it has been allotted in a phrase, which is finally a function of the position that a phrase takes up in a sentence. In short, it has selection restrictions that permit or inhibit its appearance at a given point in a sentence. The boundaries of a meaning must therefore be clearly circumscribed. The nature of the selection restrictions for a given word forms a feature of linguistic competence. According to these principles a metaphor represents 'a violation of a selection restriction' (ibid) and is therefore outside the domain of competence. Lapin (1981:1) asserted that this violation occurred when 'a term *t* modifies another term *t'*', in accordance with the syntactic rules of the language and *t* and *t'* are respectively associated with incompatible kinds of entities. This was described as a violation of 'sortal correctness'. In a similar vein, Botha (1968) held to the Hegelian distinction between live and dead metaphors. The death of a metaphor was synonymous with its acquisition of the selection restrictions that gave it a place in linguistic competence or in 'rule governed linguistic creativity' (Taylor 1995). New metaphors were a violation of the said restrictions. They amounted to 'rule changing creativity' and therefore fell outside the control of competence and thus of formal linguistic enquiry.

1.2.7 Metaphor and relevance theory

As said, there are clear reasons why the logical and generative traditions of semantics should decide they could not deal with an analogical entity. An obvious way to move forward from this is to accept that state of affairs and to regard metaphor as belonging

to a territory that Chomsky (1985) would call epiphenomenal. In this Chomskyan sense an epiphenomenon is an ethereal product of the core and phenomenal nature of competence. To regard metaphor as an epiphenomenon means that it should not be treated as a violation of the semantics of natural language because it is outside the core competence to which these belong. One can then treat metaphor more as a violation of the 'co-operative' maxims that according to Grice (1975) allow communication between individuals to occur. Thus, while a co-operative principle asserts the need for truthfulness, statements such as 2, 3, 4 and 8, above, are blatantly false. The statements' falsity necessitates that 'one seek, a figurative, co-operative intent behind the utterance' (Sadock 1993: 43). Such a necessity raises the issue of the principle according to which an interlocutor searches for a co-operative principle in an evident falsehood. One solution to this involves acquiescence to another Gricean maxim, that of relevance. In respect of sentence 8, above, (Sam is a pig), we reject the idea that Sam is really a snorting and inarticulate quadruped because that meaning is not relevant to the idea we manifestly want to convey or to the context in which the communication takes place.

According to Sperber and Wilson (1985 and 1986), the Gricean maxim of 'relevance' should be perceived not just as one of the several principles that allows meaningful communication to occur but as a theory of mind. It is fundamental to our processes of thought that we heed the points that are relevant to us. In essence, this could be postulated as a theory of survival. Our existence depends on our ability to distil from a host of minor threats the one that is most likely to put our survival at issue. This threat would be marked as the most 'relevant'. In forming an utterance, we first try to make the utterance concur with the *assumptions* that we hold about it (Sperber and Wilson 1986: 2). Equally our interpretation will be guided by the same principle. A second stage is to search the context for features that will be 'relevant' to the assumption. Thus in an interpretation of 2, above, (women are angels wooing), we know that 'women wooing' are not 'angels'. Because the statement may violate our first assumption about wooing women and angels, we will therefore look in the context of angels for the implicatures that are most relevant to the information we are trying to convey; for example, virtue and sanctity.

Goatly (1997) has developed one of the most elaborate views of metaphor according to the principle of relevance. He treats the distinction between literal and metaphorical language as existing on a cline (ibid: 142-143). The point where we find ourselves between the strictly literal and the demonstrably figurative depends on the number of implicatures through which we have to work in order to discover the actual meaning. In examples 2 and 8, above, the number will be small. In the case of 2, this would be because of the partial lexicalisation of angel as a term for a sacred and sweet-natured person. In a case such as that of 9, below, it is clear that the number of implicatures would be very great and the issue of relevance would never be totally resolved, making this highly metaphorical.

9 Eternity is a spider (cited in Cooper 1986)

1.2.7.1 Metaphor and relevance theory: cognitive criticisms

Gibbs (1982 and 1983) produced evidence to show that people do not necessarily analyse the literal interpretation of a sentence such as 10, below, in order to construe it as an indirect speech act. Thus a relevance view would hold that 10, below, is understood first as 11 and only secondarily as 12:

10 Can't you be friendly to other people?

11 Are you unable to be friendly to other people?

12 Please be friendly to other people.

Such a sequence of literal to non-literal computation would entail that processing a sentence such as 10, above, would require greater cognitive effort. Gibbs conducted a series of reaction time tests where subjects were given two different contexts for a sentence such as 10. The first suggested the meaning should be construed literally, the second, figuratively. Thus, a literal context was suggested where a psychiatrist implied that their patient had a condition where they could not be friendly. A non-literal context was given as one where an adult was trying to correct the behaviour of a quarrelsome child. The fact that under experimental conditions, subjects took longer

to compute the literal meaning than the figurative was taken as evidence against the adoption of a relevance view of metaphor processing (Gibbs 1994).

1.2.8 The cognitive view of metaphor

Gibbs' conclusion that non-literal language does not entail greater processing time was used to support a cognitive or image-schematic view of metaphor processing. This cognitive view remains the basis for the largest research endeavour in the field of metaphor and has amounted to a re-orientation of how we treat language, the relationship of language and thought and the nature of thought itself. The development of a cognitive approach to metaphor can be considered as having the following strands:

- 1) The reduction of metaphors as they occur in language to a finite set of common metaphors that are treated as conceptual or formative of the meanings with which language must work.
- 2) A view that the way in which we treat a topic in any form of scientific or philosophical enquiry is skewed by the metaphors through which it is conceptualised.
- 3) The observation that much language understood as literal is in fact highly metaphorical and that finally the literal/metaphorical distinction does not really exist in a definitive sense.
- 4) The understanding that abstract language is entirely metaphorical in origin and can largely be reduced to a set of expressions that derive from our experience of our bodies and of the body's interaction with the world.
- 5) The view that abstract language is an expression of universal conceptual metaphors resulting from our existence as embodied creatures in a state of interaction with a world governed by the laws of physics.

- 6) The view that some abstract language is a product of culturally specific conceptual metaphors.
- 7) The realisation that the grammar of language is itself derived through metaphor from the awareness of ourselves as embodied creatures
- 8) The view that language will reveal its relationship to thought through a diachronic study that shows how it has evolved from our experience of ourselves as embodied beings
- 9) The development of the above eight insights towards a wider philosophical perspective or a 'cognitive science of philosophy' (Lakoff and Johnson 1999).

1.2.8.1 The cognitive view of metaphor: conceptual metaphor

In 1979, Reddy (1993) observed the inter-relatedness of the metaphorical expressions that we need to talk about a given idea. He showed how 'communication' is often conceived as a 'conduit' in that many expressions that discuss this topic employ ideas of opening or using a channel as in 'getting through, coming across, putting across' or 'transfer' as in 'language transfer' (ibid: 189-197). Equally, the message itself is perceived as the container in the conduit as when we 'unpack a statement or 'search *in* text for a message'. The implications of this discovery were held to be widespread, touching upon, for example, the way we conceptualised and thus critically approached a communicative package such as a text (ibid: 179-180).

Lakoff and Johnson (1980) extended Reddy's analysis by exploring a series of metaphors through which we conceptualise abstract experience. Thus 'business' and 'argument' are talked about as if they were 'warfare'. Equally, our visual field is a 'container' reflecting our sense of ourselves as creatures contained by our bodies, with things coming *into* view, while 'time' has a complicated conceptualisation as differing trajectories in space or as money. The 'business is war' and 'the visual field is a container' metaphors can be seen as examples of conceptual metaphors. This is because conceptual metaphors are not an example of a use of language in text but an

instance of the common features of the language in which we talk about a given abstract topic such as 'love' or 'time'.

Conceptual metaphors represent how we grasp and structure our reality. They supposedly establish the principles that guide our metaphor-making in language or in some other medium.

1.2.8.2 The cognitive view of metaphor: metaphor and conceptual studies

The observations of Reddy (1993) and Lakoff and Johnson (1980) have triggered a large body of research into the links between metaphor and the manner in which a given topic or area of enquiry is conceptualised. For example, our understanding of medicine, illness and health can be made clearer when we understand the types of metaphor through which such topics are grasped. This is a type of study which is generating a large interdisciplinary enquiry that is of interest to social science, linguistics and psychology. Such a literature, which is already too large to receive more than a cursive treatment in this thesis, will be summarised in more detail in the next chapter.

1.2.8.3 The cognitive view of metaphor: towards a cognitive poetics

Lakoff and Turner (1989) have also initiated the use of conceptual metaphor to plot the emergence of imagery in literature. This has led to what has been termed a 'cognitive poetics' by Tsur (1992). Gibbs (1994) and Gibbs and Bogdonovitch (1999) were more circumspect, however. They observed how the automaticity that characterises the processing of metaphors through stored conceptual metaphors should be differentiated from the reflective interpretation of imagery as it appears in text.

1.2.8.4 **The cognitive view of metaphor: the irrelevance of the distinction between the metaphorical and the literal**

The cognitive interest in metaphor forms a coherent argument about the way we conceptualise, express and understand meaning in language. For example, we cannot separate the view that our thoughts about a subject are structured by thematically related sets of metaphors from the assertion that metaphor is fundamental to thought and that there is not meaningful distinction between literal and figurative language. Thus a text such as 13, below, might show that a lecturer is thinking as if their '*lecture is a path*' because they talk of a start point then describe their progress through the subject as if they were in motion.

13 I will **start** at the history question, that is how the education system grew up. I will **go on to** what we are left with now. Last I will **come to** future changes.

Yet few people would consider the use of these verbs to be deviant or figurative. Thus, because we start to understand that apparently normal uses of language are based on metaphor, the distinction between the literal and figurative starts to disappear. The opposite is also true. In order to agree that exhortations such as 'use the time' and 'put some time aside' inter-relate through a 'time is a resource' metaphor (Lakoff and Johnson 1980: 65), we would first have to accept that these apparently literal statements are in fact figurative to some degree. In the final analysis, the distinction between the literal and the metaphorical can only be grounded in the agreement of a given speech community in respect of which expression is novel and outlandish and which now belongs to normal or literal use.

1.2.8.5 **The cognitive view of metaphor: how metaphors shape the way we think about a topic**

The way we think about a topic is partly determined by the metaphors in which it is expressed. If we take an abstract topic such as 'time', it is clear that it is impossible to think about it except as an animate or inanimate phenomenon in space or as the space between objects (Lakoff and Johnson 1980). Therefore, we cannot simply conclude

that time can only represent itself through metaphor and that the apparently literal language of time is in fact highly metaphorical. Another conclusion could be that time, as we can conceptualise it, is an inference of the metaphors through which we express it (Lakoff and Johnson 1999). The consequence may be that metaphor fashions our approach to the problems posed by reality, society, politics or any domain of human interest. The metaphors with which we think and talk about things will exert some control over the way that those things are seen and will therefore effect the decisions that we make about them (e.g. Lakoff 1992).

Lakoff (1992) wrote how the metaphors with which western politicians conceptualised the Iraqi invasion of Kuwait made it extremely difficult to make balanced assessment of the event. Lakoff (1995) extended this type of analysis by suggesting that the triumph of conservatism in the America of the 1990s could be related to the type of metaphor in which the liberal versus conservative debate had been framed. Fiumara (1995) also adopts this mode of analysis. She shows that the way metaphor steers conceptualisation will not simply guide how we view a given topic but can rehabilitate unacceptable practices. An example, that Fiumara draws from Peters (1985), is the view of the medieval philosopher, Azo, regarding torture. Azo perceived torture as 'the enquiry after the truth by means of torment'. In this sense, 'torture' is defined through a metaphor that emphasises one of its aspects and not others. The writer's major interest may be to rediscover torture through torture's alleged purpose and not through its effect. Metaphor begins as an instinctive method of finding and naming concepts that are crucial to how we structure reality, such as reason or time, but it ends as a way to exert conscious control over those structures in order to foster or protect a given social order.

A related point in respect of Azo's torture definition is how this underscores Johnson's (1987) view of the traditional distinction between the performance of logical operations upon knowledge and the drawing of that knowledge out of the world. In this distinction, logical manipulation is subject to its own deduced principles. The principles are distinct from what is being manipulated. As Fiumara (1995) makes explicit, bringing knowledge out of the world is often achieved by a definition. Definition may often work first through ostension in that it proffers an agreed set of features in the item in question that obtained through examples existing

in the world. However, even here, the formation of a category involves the generalisation of an object according to some features and not according to others. This entails that we abstract away from the specific instance of the thing towards an edited construction of it. In defining abstract terms, the role of metaphor is clearer. The definition is achieved through a metaphor that must inevitably exert some control over the nature of the argument into which it is set. An item cannot be extracted from reality as token that is untouched by the process of extraction. It is reformulated by the argument for whose purposes it is extracted, thus blurring the boundaries between the manipulative process of logical thought and the nature of what it manipulates.

1.2.8.6 The cognitive view of metaphor: Schön's (1993) theory of generative metaphor

Despite the fact that cognitive thought about metaphor was extended towards this type of political and sociological analysis, one should also note that this interest in how metaphor frames meaning originates also in the quite different philosophical perspective of Schön (1963 and 1993). Schön (1963) showed how the solution to a given problem, whether about social policy, or whatever, would lie in the way that the problem was framed. Schön (1993) discusses metaphors as 'generative' of our approach to the issues under consideration, showing how planning will occur according to how a community is conceptualised. Thus a slum may be 'a disease'. This metaphor will be generative of a narrative, perhaps in this case of 'blight and renewal' which is the construction that we place upon the subject or the slum.

1.2.8.7 The cognitive view of metaphor: Kuhn's structure of scientific revolutions

Kuhn's (1970) work on 'the structure of scientific revolutions' also illustrates a differently derived interest in how we conceptualise phenomena that finds common cause with cognitive thinking about metaphor. Kuhn (1970) put forward a theory where major shifts in paradigms or in sets of theories meant that science could not be perceived as a single enterprise with a unifying set of perceptions. For example, prior

to Copernicus, Mars and the Earth had different category membership. After Copernicus, they were both considered as planets (Kuhn 1993: 539). Therefore, it is difficult to conceive of how those who preceded Copernicus could be said to be talking about the same thing when they said 'Mars' as those who came after him. An idea that Kuhn considers wrongly attributed to him is that a medieval view of Mars cannot be compared to a post-Copernican one because the paradigm shift makes this impossible. What Kuhn in fact claims is that there is 'no neutral language into which these terms, Mars and Earth, can be translated for the purposes of comparison' (ibid: 1993: 540).

Metaphor, according to Kuhn, can be described as ostension. Ostension can be seen in the process by which we understand that, say, chess, draughts and backgammon have enough shared features to let us to assign them to a common category, games. Kuhn argues against Boyd (1993) and his claim that science uses metaphor in a process he calls '*dubbing*' which is basically using an existing term to fill a semantic space. According to Boyd, dubbing occurs when a known term names a hitherto unknown phenomenon. In this sense the unknown is given expression in familiar language rather than in a term that is expressive only of its as yet unregistered meaning, hence, the metaphor '*dubbing*'. An example would be the aquatic term 'current' for the electricity in a wire. Kuhn's view is that Boyd ignores the process of ostension where the unifying features of a 'current' in the aquatic sense and the electrical one are demonstrated by the similar behaviour of each. Kuhn's view is that this demonstration of common attributes will create an aquatic narrative for an electrical phenomenon. Such a linkage means that electricity lives in water's conceptual shadow. According to Kuhn (1993), scientific terminology is therefore less than purely referential in the way that proper names are. Boyd (1993), on the other hand, sees dubbing as a process occurring in language. It is the use of a known term to name what is not known. One can see such a process most clearly in the naming an unknown child with a name that has been carried by others of the same sex. The child is not given the attributes of its namesakes.

Ankersmit (1993) raises an additional point in respect of Boyd's '*dubbing*' version of scientific metaphor. This is that the over-emphasis on the dubbing aspect of metaphor to plug semantic gaps may underplay its literary function. In the Japanese Haiku, for

example, the objective is to set up plain language in such a way that it does not so much name the unknown or rename the known but actually withdraws words from their apparent specification of concrete meanings (Ankersmit 1993).

1.2.8.8 The cognitive view of metaphor: metaphor and the construction of abstract thought: the image-schematic basis of meaning

Lakoff and Johnson's (1980) wider implication is that the entire apparatus of abstract expression is metaphorically structured. Effectively, we can refer to an abstract realm out of phenomena that can be processed through the senses. Johnson (1987, 1989, 1991 and 1993), Gibbs (1994) and Lakoff and Johnson (1999) have elaborated this into what could be termed an 'image-schematic' view of meaning.

In essence an image-schematic view of meaning holds that we create abstract meaning out of the sense of ourselves as a mind within a body. Abstract meaning expresses itself through the functions of the body or the way in which the body situates itself in the world. Image schemata are the mental images that we have of ourselves as embodied creatures and of our embodied interactions with the physics of the world. We use these images to form conceptual metaphors.

Johnson (1987) gives as an example of this the notion of 'balance'. 'Balance' is a core concept in logical thought. We speak of 'balanced equations', 'balanced arguments' and balanced 'points of view'. Yet this notion of 'balance' derives from the fact that in the early existence of every individual, the attainment of balance and of walking upright is mapped as a key concept that connotes well-being and the ability to run with the tribe. To be unbalanced is to fall. Balance and a concomitant aspiration towards symmetry can thus be rooted in an instinct to stay upright and survive. One might infer that, indirectly, a survival instinct governs our perceptions of logical argument.

The core concept of 'balance' as it is equated with the achievement of remaining physically upright creates a schema or mental pattern. This schema furnishes language with the material out of which it can express such abstract concepts as logic. More

contentiously, the schema may also provide a vehicle through which new metaphors are understood (Gibbs 1994). For example, if we hear the phrase 'a wobbly argument' for the first time, we will know that it means the argument is unsound because we carry within the mind a schematic association between logic or successful argument and balance.

Smith (1990) develops an image-schematic view of logical meaning in an examination of the language of psychology. Smith also examines the core assumptions in which logical positivism grounds its flight from metaphor. 'The formal components of a theory need to be metaphorically 'tied' to the observable or empirical elements' by 'links', 'anchorings', 'chains of sentences', and 'bridge principles' (Fiumara 1995: 5). The irony is that logical positivism eschews metaphor with metaphorical language. In the same vein, Lakoff and Johnson (1999: 170-234) analyse the highly complicated conceptualisations of causation, examining how 'cause' primarily has a spatial link or 'path' connecting 'states' which are thought of as if they were 'locations'. Thus one can be 'led from one conclusion to another' as if from location to location.

1.2.8.9 The cognitive view of metaphor: the cultural specificity of conceptual metaphor

There is a further area of study that has derived from the view that all abstract thought is expressed through conceptual metaphor. This study addresses the question of the extent to which conceptual metaphors are peculiar to specific cultures and languages or are cognitive universals deriving from the facts of human existence. Such studies are in an early stage but have the potential to give a clearer insight into how the preoccupations of a given culture at a given time will shape the way in which its members talk about the world. Much English expression and idiom results from England's maritime history, for example, 'steer, drift, cast away, be carried along by the current, be in the stream, etc.' Such idiom shows how near-extinct socio-economic functions can persist as a formative cultural effect.

Intercultural studies are a growing area of interest. Studies of time and of time's expression in language (Alverson 1995 and Nuñez et al. 1997) have always been of particular interest to those who wish to explore the relationship between culture and language. This interest was aroused by Whorf's (1956) now discredited view that different representations of time in the Hopi language entailed a different cultural construction. Both Nuñez et al. and Alverson allow that time is grounded in such universals as 'time is space'. However, Hindi tends towards a more cyclic representation (Alverson 1995). By the same token, Lakoff has discussed a variation of his 'up is power' as a metaphor of social organisation (1987: 274) between Indian cultural conceptualisations and those of English. Yu (1998) has also made an extensive study of both the common and culturally divergent conceptualisations that mark English and Chinese.

1.2.8.10 The cognitive view of metaphor: grammar as originating in metaphor

The view that abstract meaning evolves largely from a limited number of image schemata has triggered the wider study of the relationship of language to thought that has assumed the title of cognitive linguistics. Perhaps, grammar is the most abstract form of meaning since arguably it does not suppose signs that are specifically meaningful but controls the combinations of the same and thus creates from them meanings that these signs do not individually have.

Cognitive grammarians have set out to show how such a feature as tense is also metaphorically derived. Langacker (e.g. 1990 and 1994), Heine et al. (1991) and Heine (1997) have put forward the thesis that it is not just lexical abstract meaning which is derived from the physical and from our embodied being, but grammatical meaning also. For Langacker, a core principle of language is reification. By this is meant that language evolves from the underlying metaphor that conceptualises an abstract idea as a thing, whether animate or inanimate. Grammatical meanings and the inflections by which they are sometimes carried are held to derive from a process known as grammaticalisation (e.g. Heine and Reh 1984; Hopper and Traugött 1993). According to the grammaticalisation thesis, certain words become more grammatical as the

language evolves over time and this process is achieved by metaphor. For example, a preposition may begin as the metaphorical development of a noun body part, reflecting the orientation of the body to the world (Heine 1997). This can be seen in a word such as the English 'back'. In its function as a preposition, the word, which represented a body part, will assume a grammatical role, specifying the meanings that arises from the relationship between other terms. In a final, but far from universal, stage the preposition may become part of the morphology of the noun, thus creating the case endings of inflected languages such as Latin.

It should be stressed that the role of metaphor in language change remains contentious within a school of thought about language that is fundamentally cognitive. Yet a clear principle is the view that the study of grammar is only meaningful if it is studied diachronically (Heine 1997). Only in a diachronic study can one retrieve the image-schematic origins of grammatical inflections that appear simply as abstract expression of an abstract organisation when viewed outside the context of their evolution.

The clear and overwhelming conclusion then is that although the nature of metaphor is still the subject of considerable debate, it can no longer be perceived as simply about the study of rhetoric but needs to be addressed as fundamental to thought and meaning creation. Metaphor studies are reworking how we look at language and its relationship to thought. The consequence is that if such studies insist that we look at language in a different way, they must therefore have some impact upon our thoughts about the teaching of language and even upon teaching itself. As I will explore, that task has already begun, but in a somewhat fragmented way. My objective here, will therefore be to draw these fragmented approaches towards a more consistent frame.

In order to achieve this objective, I will first need to develop coherent understanding of metaphor as a process that is fundamental to cognition. Since the manifestation of metaphor is predominantly linguistic, I will therefore engage in a more extensive analysis of the phenomenon of metaphor as it appears in language. In order to throw more light on this question, I will also examine related figurative devices such as simile, analogy and metonymy, asking how far these can be regarded as distinct or overlapping categories of language use. I will conclude that metaphor cannot be identified according to formal linguistic criteria and that therefore it should be construed as a sub-linguistic phenomenon or cognitive process. I will then discuss the nature of that process as it is currently construed in the literature. My objective will be to map out a coherent perspective from which to re-examine our approach to language teaching. This discussion will make the following contributions to the area:

- 1) It will reinforce cognitive arguments that one cannot construct a formal analytic instrument to show when language is or is not metaphoric. It will do this by:
 - showing how different interpretations can locate metaphor in different parts of the same sentence
 - identifying what I call a ‘ripple effect’, where a metaphorical meaning affects the literal sense of the words around it to a diminishing degree

- 2) It will discuss how a given genre can make a term metaphorical and that this can invalidate truth-condition arguments because it allows a metaphor to be literal (respectful of normal truth conditions) and metaphorical at the same time.
- 3) It will explore the nature of allegory as an extended metaphor and show how it differs from analogy.
- 4) It will analyse proverbs as 'ready-to-wear vehicles' that are provided by a culture to dress topics with the relational structure commonly attributed to analogy.
- 5) It will show how the common concept of analogy is constructed out of proportional metaphor. The concept of proportionality can identify analogy's distinctive nature but may not take full account of the broader capacity of words to disrupt proportional metaphors with their broader sets of associations.
- 6) It will discuss the Hallidayan concept of grammatical metaphor and reformulate it as a cognitive construct by:
 - arguing that the SFL (Systemic Functional Linguistic) notion of congruent language is grounded in the direct representation of physical events and objects and that these representations may actually be a means through which abstract ideas are conceptualised
 - concluding that a nominalised grammatical metaphor may not be a departure from congruent language but an exploitation of its representations in order to deal with the conceptual challenge of cause and effect relationships
- 7) It will follow Glucksberg and McClone (1999) by arguing that metaphors can be seen as class-inclusion statements and make the further suggestion that the pleasure we draw from them originates in the satisfaction of finding a taxonomic home for a strange and potentially threatening phenomenon.

- 8) It will reformulate Jakobson's (1971) concept of metonymic and metaphoric poles by showing a continuum of different types of meaning creation between them, and showing how the metonymic pole can be classified *in extremis* by the extreme condition of autism.
- 10) It will further explore the traditional view of similarity as a basis for metaphor and will suggest how this might be integrated into the image-schematic structures proposed by such as Lakoff and Johnson (1999).

Next, I will set out the areas in which cognitivist perspectives on metaphor are impacting on language teaching. I will then suggest how these can be developed towards a coherent way forward for language teachers that both treats the communicative approach as lacking a solid basis in learning theory and undermines generative views on second language acquisition. Broadly, I will contribute to the area in the following ways:

- 1) I will show how cognitivist approaches to metaphor can restore the synergy lost at the end of the behaviourist era between the way in which languages are learnt and languages are constructed.
- 2) I will examine how some current methods and the broader approaches that they realise (e.g. Silent Way, TPR –total physical response- and NLP -neuro-linguistic programming-) may succeed because they make an intuitive appeal to the metaphor-oriented cognition that this thesis depicts.
- 3) I will put forward an argument that holds generative views of language acquisition to be in contradiction not just with cognitivist views about the relationship between thought and language but with the generative premise itself.
- 4) I will discuss how an understanding of metaphor can help teachers to construct an approach that appeals to both cognition and affect.

Last, I will substantiate this theoretical position by showing how it could operate at a classroom level. I will do this by outlining classroom techniques then by adopting the role of participant observer in order to recount how the techniques were implemented. I will recount the narrative of given teaching procedure as it unfolded in class and then will discuss how the technique was or was not developed in the light of what happened. I will contribute to the development of classroom pedagogy as follows:

- 1) I will describe newly formulated techniques and discuss their implementation.
- 2) I will recount the impact of the techniques upon different groups of adult students in several types of location.
- 3) I will show how these techniques can be related back to the metaphor-based view of abstract lexis and grammar that is being described.
- 4) I will indicate how student errors can be examined from an image-schematic perspective.

I may intimate that a procedure evoked a receptive response from a given group of students. I will also argue in favour of a particular technique because it implements the broader cognitivist view of language pedagogy that I am trying to construct. However, I will not, at this stage, make any wider, objective claim about the effectiveness of the method that I am putting forward. This thesis is making a theoretical case, both through the nature of its argument and through a demonstration of how this can be realised at the classroom level. Concomitantly, the range of techniques, locations and episodes that I discuss precludes the construction of any broader and more detailed classroom ethnography. The objective here will remain one of theory construction.

2 Finding a Concept of Metaphor

2.1 What this chapter is about

This thesis is about an approach to teaching language. As such, it suggests that language should be seen in a particular way. I have called that view ‘metaphorical’. By this I do not mean that language is itself a metaphor. I mean that language is often a product of metaphor-making processes. The corollary of this is that the mind that produces language has a strong orientation towards the understanding and creation of metaphor. Language reveals the tendency of the mind to deal in metaphor. My objective in this chapter is to set out exactly what I mean by this.

I begin by examining what metaphor is from the perspective of how it occurs in text. In order to do this, I will look at textual examples that might conventionally be called metaphorical. Two uses of metaphorical language that occur commonly in speech and writing are *idioms* and *proverbs*. I will therefore give these some consideration.

I will also examine some other uses of language that would also be called figurative and which could easily be confused with metaphor. Classical rhetoricians called figurative uses of language ‘tropes’. The tropes I will examine are, metonymy, synecdoche and the more extended use of non-literal language that is called ‘analogy’. This study will make a more detailed analysis in order to support the argument made in my introduction that, finally, metaphor must be accounted for by factors that cannot be explained by the formal study of language (Sadock 1993). Metaphor cannot be accurately described according to its peculiar textual features. I will agree with Elgin

(1983) that any debate as to whether a use of language is metaphorical or literal is finally an issue of how it is judged by a given speech community. This judgement in turn depends upon how far a given item has come to be considered a conventional or normal part of a language.

However, I will not hold with Sadock's (1993) unease about the fact that metaphor is common in language but not open to linguistic description. I will stress that the problem of identifying metaphor in text must re-emphasise its ubiquity and hence its importance. I will further show how this provides evidence for a cognitive perspective on metaphor (e.g. Langacker 1990, Gibbs 1994 and Lakoff and Johnson 1999).

The structures of language are rooted in the way we process our physical experiences of the world. Conceptualisation is central to these processes. Conceptualisation is the way we represent largely abstract phenomena to ourselves. For example, let us take the word 'thought'. Thought has no existence in the way physical objects such as trees and rocks have existence. We cannot simply perceive 'thought'. We must conceptualise it. Abstract ideas have to be conceptualised through other things. Seeing one thing through another is central to the idea of metaphor. Poetic metaphor, as when Shakespeare's Macbeth says that 'life is a walking shadow', can be interpreted as one of the clearer linguistic manifestations of the larger cognitive process through which abstract meaning is conceptualised. It should be treated as the more obvious linguistic evidence for a much more important and ubiquitous cognitive process.

2.2 Describing metaphors

I begin by looking at a clear and straightforward example of what a metaphor is. I use this example in order to set out the language with which a metaphor would normally be described. I take the example:

14 She is the world

and in order to show why this is a metaphor, I will undertake what could be called a truth-condition analysis.

2.2.1 Describing metaphors: Tarski's truth condition semantics

According to Tarski (1956) the meaning of a statement derives from whether or not it refers to its normal frame of reference. In other words, a statement is true, if and only if, it is true (ibid). Therefore let us suppose that the speaker of example 14, points to a person and begins the statement 'she...'. If the person indicated is female, then the word, 'she', represents a correct and meaningful use of language. Now let us suppose that the speaker continues 'she is 20 years old'. Then the statement is meaningful, if the person indicated really is twenty.

Somewhat differently, let us further imagine that the speaker does not say 'she is 20 years old' but 'she is the world' and points to a ship. Then it is clear that this reference is not to a female person but to a ship. Further the ship is not the world

because it is a ship. This statement violates its truth conditions. Strictly it should be meaningless. Yet what is anomalous is that most people would find this statement meaningful. Thus, we can perhaps say that at root a 'metaphor' is an expression that is meaningless according to its truth conditions but intuitively meaningful. It is this recourse to an intuitive meaning that makes it so difficult for formal linguists to deal with metaphor.

Elgin (1983) suggests that metaphor can be accommodated within truth conditional semantics. She argues that we have to acknowledge that an extended meaning can be true or not true according to whether or not it fits its frame of reference. Thus, 'she' in the English convention can be meaningful when it refers to ships. 'World' can mean a place that means a lot to us. Therefore if 'she' is a ship and if the ship means a lot to the speaker then the statement is meaningful. The problem here, is that it becomes very difficult to know what is an acceptable extended meaning and what is not.

Language is thrown into exactly the semantic flux from which formal philosophy and linguistics tries to rescue it.

2.2.2 Describing metaphors: the structure of a copula metaphor

Example, 14 above, (she is the world) is 'a copula metaphor' because it consists of a subject and a predicate with a form of the English copula verb 'be.' Scholars of metaphor often take this as a prototypical metaphor. By this I mean that discussions of metaphor often refer to this kind of copula sentence as if it embodies what metaphors

essentially consist of. For example, when Wollheim (1993) begins an account of metaphor in painting, he does so with these examples of copula metaphor:

- 15 Juliet is the sun
 Religion is the opium of the people
 No man is an island unto himself

These are not visually represented concepts. Wollheim uses them to typify what a metaphor is, whether it exists in visual or verbal form. Ricoeur (1975) went further. He even suggested that the essence of a metaphor exists in the copula verb itself. For Ricoeur, the copula binds unlike elements together while keeping them apart. ‘A world’ and a ‘female person’ are fundamentally unlike. The copula pulls them together. Drawing two different things together, however, may only suggest how different they really are.

When we give linguistic form to a visual metaphor we may change its nature somewhat. This indicates that copula metaphors do not truly represent what metaphors are. Later, I will discuss other problems with treating the copula metaphor as prototypical. For now, I follow tradition and treat copula examples as useful ways to define some of the language with which we talk about metaphor.

2.2.3 Describing metaphors: the topic and the vehicle

As pointed out in Chapter 1, I.A. Richards (1936) described a metaphor as having two parts, a *tenor* or *topic* and a *vehicle*. The tenor is what the metaphor is about. The vehicle carries the meaning of the metaphor. Thus, in sentence 14, above, (she is the world), the metaphor is about ‘she’ and the person referred to is therefore the tenor or the topic. The meaning of the metaphor is carried by the term ‘the world’. Therefore ‘the world’ is the vehicle.

2.2.4 Describing metaphors: the T term and the V term

Goatly (1997) has language rather than meaning as his main interest. Consequently he talks of a *T term* and *V term*. The T term is the word by which the topic is expressed. The V term is the word by which the vehicle is expressed. Thus, in the example, ‘Juliet is the sun’, 15, above. The T term is ‘Juliet’ and the V term is ‘the sun’.

2.2.5 Describing metaphors: the grounds and the G term

Goatly (1997) uses another, more controversial term, *grounds*. There is a common assumption that metaphors are based on a sense of similarity. In example 15, above, a metaphor is created because a topic, ‘Juliet’, is in some way similar to the vehicle, ‘the sun’. Goatly (1997) uses grounds in order to specify the nature of this similarity.

In consequence, grounds can be at least partially specified, by a *G term*. To illustrate this, I will extend example 14, above, (she is the world) to make sentence 16, below:

16 She is a **new** world.

In this sentence, the grounds of the similarity between the woman and the world are partly specified by the insertion of an adjective 'new'. We can now assume that the similarity between the topic, 'she', and the vehicle, 'world' relates less to the all encompassing nature of 'a world' and of the person and more to their newness or unexplored extent. The adjective thus limits the way in which we can interpret the metaphor. One can argue that the *G term*, which is an adjective in this case, furnishes us with the grounds of similarity on which the metaphor is based.

Goatly assumes that metaphors are built when a topic and vehicle share grounds of similarity. I will examine the question of similarity and metaphor shortly. For now, I wish only to stress that this assumption about grounds of similarity is more controversial than it might at first appear.

2.2.6 Describing metaphors: thinking about their meaning

Goatly (1997) uses T term, V term and G term to label the words or phrases that represent topic, vehicle and grounds respectively. He therefore assumes that there are items of language or terms representing types of meaning within a metaphor. From such an idea we might assume that a prototypical metaphor is not really so much

about saying that one meaning *is* another, perhaps quite different meaning, rather it is about saying that one term *is* another, perhaps quite different term.

Cognitive linguists are interested in looking beyond what simply happens in language towards how we shape meanings. Their interest is in how the nature of meaning shapes the nature of language. Therefore a cognitive analysis of metaphor will be based upon categorising and describing meanings rather than terms. Of course, these meanings can only be satisfactorily accessed and described by language.

2.2.7 Describing metaphors: semantic and cognitive domains

Semantic field analysis examines the wider field of meaning in which a given term operates. For example, if we were to study the word 'iron', we would also look at toasters, vacuum cleaners, and other items within the household tools *domain* (Hatch and Brown: 1995: 33). Cognitive linguistics have also adopted this idea of a domain of meaning and perhaps extended it to cover other attributes. Thus, irons have the function of smoothing creases in cloth. They now operate with electricity and even connote types of domestic servitude. If it includes such associations, the domain of a given word can be treated as very large. It also overlaps the domains of other words.

In analysing metaphor and analogy, cognitive linguists (e.g. Gibbs 1994, Fauconnier 1997, Lakoff and Johnson 1999) have used the terms *source domain* and *target domain* in order to explore the wider meanings that metaphors create, or out of which these figurative uses of language are created. Thus, in 15, above, 'the sun' operates in

the domain of where it is: the sky. 'The sun' also operates in the domain of its attributes: warmth, brightness, a source of light and of life.

2.2.8 Describing Metaphors: source domain, target domain and mapping

For now, my key point concerns the role of domains in the construction of a metaphor. In example, 15, above, 'sun' is referred to as the source domain while 'Juliet' is considered the target domain. In order to make the connection between the source domain and the target domain, another term, *map* is used.

Mapping means a transfer of meaning from one domain to another domain (Fauconnier 1997). According to such terminology, a metaphor, as it occurs in text, represents a transfer of meaning from a source domain onto a target domain. I will now look more closely at an example from 15, above, to make this clear.

The source domain for the first sentence is 'the sun'. As said, the domain of 'sun' includes the attributes of giving light to the world, of brightness and hence, perhaps, beauty. When the sun is mapped onto Juliet, she will have some of its attributes. Juliet therefore has the ability to light up the world. Thus, the source domain of the sun maps onto the target domain of Juliet, and a metaphor is created.

Another feature of the terms, source domain, target domain and map is that they assume some directionality in the creation of meaning in metaphor. Richards (1936),

Black (1962 and 1979), Ricoeur (1975) and (Ankersmit 1993) all assume that metaphor works in some sense by pulling the topic and vehicle together, as if to create something ‘new’ through a process of fusion. These analyses assume the movement of topic and vehicle towards each other. Gibbs (1994: 217) cites two metaphors that support the contrary argument that metaphors map in one direction:

16 The butcher is a surgeon

17 The surgeon is a butcher (Camac and Glucksberg 1984)

Sentence 16 is a statement of praise and sentence 17 damns the surgeon in question. If a metaphor worked by fusing two elements together then the syntax should not affect the way the sentence is interpreted. Yet clearly the word order of the sentence changes the meaning completely.

It should now be clear that the terms, ‘source and target domain’ make some very clear assumptions about how metaphors create meaning. These will be discussed again at a later point and it may prove necessary to modify the issue of directionality that underlies these terms. Despite, their more controversial nature, I will use the ideas ‘source domain’, ‘target domain’ and ‘map’, because, throughout this thesis, I will reinforce the idea that metaphor, as it appears in language, represents more ubiquitous processes of meaning construction. Although in the first part of this chapter, I will look briefly at metaphor as a linguistic form, I will look later at how these forms reflect how we grasp the world we see.

2.2.9 Describing metaphors: why copula metaphors are not really good examples of what metaphors are

In the preceding section, I used some common examples of copula metaphors. I used this type of example in deference to a tradition of metaphor scholarship and also because it shows clearly the properties of what I wish to discuss. This does not mean that this type of structure is central to what metaphor is or even particularly common. Examples with the copula verb are useful because they show clearly the paradoxical nature of a form that asserts something to be true when it is clearly not.

There are three main problems with treating copula metaphors as central or prototypical:

- they are rare relative to other kinds of metaphor
- they make falsify our conception of metaphor by using a atypical form to identify how it works and what it consists of
- many languages cannot make copula metaphors because they do not have a copula verb, yet metaphor itself is universal.

The first problem is that even in a copula language such as English, copula metaphors are probably not common. Brooke-Rose (1958) and Cameron (1997) in an examination of spoken data, found that, in English, verb metaphors occur more frequently than the noun type, of which the most explicit is the copula metaphor.

Copula metaphors identify the topic as a subject and a vehicle as a complement. But the topic and vehicle can only rarely be given a grammatical identity in this way.

Many metaphorical sentences do not have a topic that can be identified in the lexis MacCormac (1985).

Lastly, we need to remember that many languages do not possess a copula and there is no equivalence in the way copulas are used across those languages that possess them. Chinese and Arabic are two major languages that do not have copulas. Arabic does construct meanings that even without a copula can be similar to those found in English. However, it is arguable that a single metaphor has a larger range of interpretations. Consider example 18, below:

18 Ali al assad (Ali the lion)

18, above, could be a titular phrase, equivalent to 'Ali the lion' in English. It could be equivalent to 'Ali is the lion' (Mohammed Al Ali, 1996, personal communication). We would need a context in order to know which meaning was being intended. Chinese, on the other hand, would sound strange if it were to construct a similar phrase without the addition of a conjunction to indicate that a metaphor is meant. In other words, we would need an equivalent phrase to 'Ali is like a lion' in order to build this kind of metaphor (Jin 1995: personal communication).

Philosophers and linguists use copula metaphors because they exemplify these phenomena as putting metaphor's contrastive and unusual use of meaning on display. However, there is a danger that this type of example may distort the nature of what is under discussion and result in some false conclusions as to its nature. For example, if we are discussing whether 'Ali is a lion' really means 'Ali is like a lion', we are

embarking on a discussion of what 'is/be', the copula, really means. Is it '=' or 'like', for example? Yet this discussion about the semantics of the copula is irrelevant to a wider construction of metaphor because metaphor occurs in all languages, whether they have a copula or not.

2.3 Metaphor as it occurs in language

One reason to discuss a metaphor as if it were a set of meanings rather than a set of words is that expressions can be metaphorical without their actually having words that correspond to both the topic and the vehicle (MacCormac 1985). I will now discuss some examples where this occurs.

2.3.1 Metaphor as it occurs in language: verb metaphors

Metaphors often appear to be built around an unusual use of a verb. In such cases, there may be no word given which represents the topic. Consider 19, below:

19 The tall ships nodded as they passed by (author's data)

It is clear that the word 'nodded' is not literal, because ships do 'nod' when they pass each other. We cannot be certain what is meant by 'nod' in this sentence. However, it would seem that the rocking of the ship's masts approximates to the movement of a 'head'. We might therefore be tempted to interpret this as:

Source domain (movement of the head) → Target domain (the swaying of the ship)

where '→' means 'maps to'. But there is no way of knowing if the metaphor really begins and ends with the verb. For example, in order to understand the non-literal meaning of 'nod' we might have to think of the ship as like a person. We might have

to think that the passing of two ships is like the passing of two people who nod greetings before going on their way. Although there may be a metaphorical focus on a particular part of speech, in this case, a verb, there is no clear idea as to whether the metaphor begins and ends here. Thus, the following interpretation is also arguable:

Source domain (the nodding of two people as they walk past each other) → target domain (the swaying of two ships as they sail past each other)

Goatly (1997) refers to the possibility of a topic referring to a whole world. In this sense a topic can carry a huge chain of associations with it. One might also say the same for a vehicle. In a similar vein, Schön (1993) refers to the capability of metaphors to generate a narrative. For 19, the narrative is of two people passing each other and, perhaps, a gesture of recognition or greeting. Then, for me, there is a larger evocation of a rural world in which strangers still acknowledge each other. It is plain that different people will construct different narratives. The greater the detail of the narrative, then, the greater will be the scope for individual divergences.

2.3.2 Metaphor as it occurs in language: adjectival metaphors

A given source domain can also be evoked through an adjective. Consider 20 and 21, below:

20 He looked well-seasoned (author's data)

21 I'm down

Arguably, sentence 20, above, works as a metaphor because 'well-seasoned' would normally collocate with 'timber'. We are thus comparing a male person to some of the attributes of an elided noun, timber. However, the point remains that a source domain can be evoked through an adjective as well as a verb or noun. Example 21 (I'm down) makes this clearer, because it does not have an easily identifiable noun reference in the same way as 20. 'Down' is a physical position that is here used to map onto a mental one. The nouns we would use to elaborate on this are not easy to identify.

An adjective or adjectival phrase can also take on a metaphorical meaning by modifying a noun it would not normally describe:

22 We heard a colourful song

23 The charred and burnt-out smell of that time comes back to me still

Sentence 22, above, attributes qualities normally associated with visual things to an auditory one. This type of example can be called synaesthetic. There is a rare condition called synaesthesia which means that people actually perceive sound as colour, perhaps on account of some malfunction in the perceptual system.

Synaesthetic metaphors however, help all of us to understand particular sensory experiences through other forms.

Sentence 23 describes a smell through the remnants of the fire that may have been its cause. It is also worth noting, in this respect, that 'smell' is a sensation that does not have a dedicated set of adjectives, in the same way as other sensations such as taste,

(e.g. sweet, bitter and sour) or sight (e.g. bright and dark) (Derrida 1978). The reason for this is difficult to determine, but may relate to how the human physiology is relatively poorly adapted in its sensitivity to smell, particularly as compared to some animals such as dogs. Hence, smell, as a secondary sense, has never developed a descriptive language that is unique to it.

2.3.3 Metaphor as it occurs in language: prepositional, particle and adverbial metaphors

As discussed, although a metaphor seems to focus on a given part of speech, it is far from certain that it can be located in that part of speech. As a descriptive linguist, Goatly (1997) has a considerable stake in relating meanings to particular expressions, and thus in giving a clear picture of the lexical items that a metaphor touches and those that it does not. In order to achieve this, he employs a notion of semantic *scope*.

Scope has been commonly applied to the analysis of negative sentences in order to show how much of a given sentence a negative applies to. In metaphor, the issue is how much of a sentence can be treated as metaphorical and thus as not having its meaning shaped by the figure of speech that is being used. For example, the scope of a metaphor can be located in prepositional phrases as in 24, below, where the assumption is that our idea of 'knowing' is unaffected by the metaphor that follows. However, since 'the corner' is the metaphor for how the future obstructs our vision 'round' does not express a spatial relationship but a temporal one. The scope of the metaphor therefore extends across the entire prepositional phrase.

24 You never know what's **round the corner** (ibid: 109)

Prepositions can also be interpreted metaphorically when they are better interpreted as adverbs or particles as in 25, below:

25 She's **coming down**

Though this may also follow from the metaphorical use of the verb, as in this case where 'come' is not a literal expression of movement but of an experience of the reducing effects of a narcotic.

By the same token, the metaphorical focus can be shifted to an adverb as in the example, 26, below:

26 She swore **blindly**

However, even in 26, above, there is arguably no clear limitation of metaphorical scope. The subject, 'she', is by implication blinded by their action in order to swear as one who will not be distracted by the sight of events that run contrary to what they assert.

In this sense one must always detect something of what I would call a 'ripple effect' when discussing figurative scope. By this, I mean that there may often be a 'rippling out' of the metaphor from the forms in a sentence that it most clearly affects.

2.3.4 Metaphor as it occurs in language: adjunct metaphors

Metaphors will also affect whole adjuncts (Goatly 1997):

27 I consider we are making a real sacrifice **when we decide to break a lance with these opponents** (Karl Marx)

The metaphor is one of jousting. Marx is saying that a revolutionary movement should not become overly distracted by the need to take on the petty instruments of bourgeois power such as police and justices of the peace. The breaking of the lance signifies wasting effort in a conflict or 'joust' with such targets when we should be focusing on the real objective of fostering proletarian revolution. The fact that the entire clause is metaphorical means that we have to find the topic of the metaphor through context. Arguably, the adjunct can work like a sentence, as one complete item of meaning that has been added to another.

Clauses that are adjuncts are arguably able to operate as semantically self-contained units or as sentences that have been appended to other sentences, albeit through a relative pronoun. It may be that they can genuinely contain a metaphor within them in the way that a sentence does.

2.3.5 **Metaphor as it occurs in language: sentence metaphors and implicit metaphors**

It should be clear that a metaphor can be contained by almost any class of word or group of words. We cannot see it as a linguistic peculiarity that can be identified by certain features of linguistic structure. Just as an adjunct clause can be read as a metaphor, as in the example above, so also can an entire sentence. Gibbs (1994: 213) calls these sentential metaphors and claims they are identified because their meaning is not shown to be anomalous by the internal meaning but in respect of the discourse in which they occur. Thus, if we hear 'The guard dog growled' when we can see a security guard but no dog, we will assume the reference is to a noise made by the guard. We will also understand that if the guard performs other dog-like actions, these cannot be interpreted as literal, either. The following example is the translation of a poem or haiku by the Japanese poet, Basho:

28 The frog jumped into the pond. (cited in Cooper 1986).

This poem raises a number of points about metaphor. The first point is that our truth - conditional analysis would not tell us anything about whether this statement was metaphorical. To apply a truth-condition analysis, we could say that 'the frog jumped into a pond, if, and only if, a frog jumped into a pond'. We could then assert, that Basho, the poet, observed a frog to do just that, therefore the statement is literal. Yet, one must ask why the poet wrote down this famous observation and why it has become something of a cultural icon. The fact that the observation constitutes a poem of a particular kind indicates that it is supposed to mean more than we might imagine.

A plain and perhaps literal statement has become a metaphor simply because it has been placed in a type of text or genre, which signals that everything said should be treated as metaphorical. Yet the genre does not invalidate the truth conditions of the statement on which the poem is based.

Another difficulty is that we do not really know what the metaphorical meaning is. This is because we do not have a topic for the metaphor. I could discuss the echoic sense of a frog jumping into a still pond, of a depth that cannot be plumbed. With less textual justification, I could say this poem is about a thought that cannot be found even as I take a mental leap after it. I could discuss ideas vanishing into a dark, quiescent void. Yet this is sheer speculation, albeit of the kind that helps to maintain the discipline of literary criticism.

Example 28, above, is a literary example of a case where an entire sentence is metaphorical. Yet such cases are not in anyway confined to literature. Goatly (1997) gives the example of certain types of proverbs such as 29 and 30:

29 Too many cooks spoil the broth

30 A stitch in time saves nine

Both of these statements could have been uttered in a workshop by mechanics repairing a car. The topic of 29 could have been the number of mechanics trying to repair the same car and how there were too many of them. The topic of 30 could have been a worn bolt that had been replaced before it broke and caused greater damage. Yet these topics would have been inferred out of a context rather than stated. Proverbs

are idioms in the sense that they are expressions that use figurative language or metaphor in a repeated way to represent an agreed meaning. Yet unlike idioms, proverbs sum up some truth about the world and are therefore intrinsically meaningful.

Proverbs are ready-to-wear vehicles available to dress any appropriate topic. The topic for ‘cooks spoiling the broth’ could be a garage with too many mechanics. For the stitching it could be replacing a tired rivet in a mechanical device. What is clear also is that the proverb is not applicable to a situation because stitches are like rivets or mechanics like cooks. It is applicable because of the fact that sowing torn cloth will prevent the tear getting larger just as replacing a rivet will prevent the mechanical defect from getting worse. In short, the proverb can be applied to a given situation because it shares what Glucksberg and Keysar (1993) term a relational structure with it.

Proverbs are therefore not implicit in the same sense as the poem about the frog. They are common sets of circumstances that our culture gives to us as available to generalise about other sets of circumstance with which they have a common relational structure.

According to a conventional description of metaphor use, a language user would begin with a meaning that required description and find a metaphor if their store of conventional lexis was inadequate. Aristotle’s famous example of this was when he describes how we use the word ‘sow’ to describe how the sun puts out flames because we have no specific term for that event (Ankersmit 1993). In the case of the proverb,

that process begins to be inverted. The metaphor pre-exists the state of affairs or meaning it will name. It is part of the stock of language that is held in order to consign a state of affairs to category of shared and cyclical experience. It protects us from the threatening rarity of an event. This notion, of a metaphor that pre-exists that which it should name, can be exaggerated still further, making the inversion of Aristotle's conventional process complete.

Cox and Theilgaard (1987) give an extreme and enlightening view of this capacity of metaphor to find otherwise inexpressible thoughts. They used metaphor in psychotherapy in order to help damaged and, sometimes, psychopathic offenders find and come to terms with memories that might otherwise be too painful to express. It may be that a given idea or linguistic formulation only becomes a metaphor when it attaches itself to something that it can express for which it would not normally be used. Yet the context of the therapy session endows every term with a metaphorical potential, scattering our stable core of meanings into a hunt for associated ideas.

2.3.6 Metaphor as it occurs in language: implicit metaphors using one word

Implicit metaphors do not always include an entire sentence or an entire clause. They can simply involve a word as in example 31, below:

31 The slime came into the room

This is implicit in the sense that there is no word or phrase which corresponds to the topic 'slime'. The metaphor is created by a disjunction between a word and a referent. The referent of slime is normally a slippery organic substance. This referent is in fact a person. The referent is outside the sentence, perhaps in another part of the text, or even outside the text and pointed to by it.

2.3.7 Metaphor as it occurs in language: metaphors beyond sentences: allegory

A single metaphor can extend far beyond a sentence. A common literary device that exploits this capability is an allegory. Arguably, an allegory frames all the events of a story inside an extended metaphor. Like Gibbs (1994), I can make this clear with a famous 20th century, English Allegory, George Orwell's *Animal Farm*. The underlying metaphor of animal farm is quite clear, it is that 'a farm is a pre-revolutionary society'.

A metaphor has specific entailments (Lakoff and Johnson 1999). When a metaphor has an entailment, we are saying that if a given source domain maps onto a target domain, the constituents of that source domain may also map onto the constituents of a target domain. For example, when thinking about Orwell's allegory, we know that most English farms have animals and a farmer, who is often the owner. The farmer is therefore a constituent of the source domain. Marx tells us that a pre-revolutionary society will have a ruling class which owns capital and an oppressed class that do not own capital and do not gain the full benefit of their labour. Therefore an entailment of

Orwell's metaphor would be that the farmer is the capitalist because he owns the farm. The farm is the capital because owning it gives the farmer his income. The animals are the revolutionary proletariat because they own nothing. Those who understand Marxist revolutionary theory can then suppose that the animals will wrest control of the farm from the farmer just as the proletariat will wrest control of capital from the capitalists.

Of course, not all the events of the book can be understood as entailments of the basic metaphor. However, it is clear that the main thrust of the action will be. For example, the emergent leader of the revolution is a pig. Those who understand the basic metaphor of the story will understand that the pig is not just a pig. Those who know the post-revolutionary history of Russia might assume that a revolution produces a brutal and cynical leader. Inside the farm metaphor, the entailment is that the leader of the revolution should be an animal that incites disgust.

The 'current opinions' shared by the speech community as to the possible meanings of given term were called *endoxa* by a given speech community (Black 1979: 28). I would argue that *endoxa* are encompassed by a domain of meaning. Although many societies eat pigs, they also attribute unjust feelings of disgust to these animals. Pigs are dirty, slovenly, overweight and glutinous. A less traditional observation is that they are cunning and intelligent. Pigs have quite an extensive domain of meaning. Therefore, in *Animal Farm*, a core metaphor entails another: 'the leader is an animal that incites repugnance'. The pig is a common metaphor with an extensive *endoxa* of disliked attributes. The core metaphor of the farm is maintained but a satellitic animal metaphor is set up with its own set of entailments.

Allegories are stories that are structured out of the entailments of a core metaphor.

Allegory is a genre that frames a text in such a way as to make everything within it and every described event open to a non-literal interpretation. Two other more fundamental points can be made:

- 1) Readers or listeners do not need to challenge how they are operating in an extensive metaphor where little is allowed to be literal, they are content to operate in a metaphorical realm.
- 2) An allegory is a fiction that is constructed to convey a specific message, yet the nature or force of that message can be extended through the entailments of the metaphor.

This last ability of a metaphor to find meanings with which its author may not have set out leads us to a similar but much more ubiquitous form of extended metaphor, the analogy.

An allegory is an analogical fiction. An allegory is quite a rare literary form that has the properties of an analogy. An allegory begins with a metaphor, 'the farm is a pre-revolutionary society', for example, that confers a metaphorical significance on everything that occurs within its frame and upon all its actors. An analogy also begins with a metaphor then explores the entailments and inferences of that metaphor. It is not a constructed narrative genre, however. The narrative of an analogy represents a much broader approach to problem solving. Allegories are analogies but analogies are not necessarily allegories. Analogies are associated, not with a simple mapping of one term onto another but with a more extended exploration of the similarities between the same. Consider example 32, below:

- 32 'Expatiation' is the key to language they believe, the adaptation of an existing structure for a new purpose. The spandrels in the San Marco cathedral in Venice are used to demonstrate this point. Spandrels are the inevitable by-product of mounting a dome on rounded arches which are placed at right angles to one another: they are the tapering triangular spaces formed between the arches. In the cathedral, these have been adorned with eye catching and delightful paintings: one, for example, depicts a seated evangelist above a slender water pourer. So stunning are these murals, that they are often the first thing noted by a visitor, who might as a first impression assume that the pillars and dome were designed purely as a mounting for the paintings. On, second thoughts, however, it becomes clear that the spandrels were a by-product of the cathedral's basic design, and the murals must have been a lucky afterthought.

So according to the 'language is a spandrel' view, language is an ingenious afterthought, something which made use of a pre-existing powerful brain. (Aitchison 1996: 74).

In this quotation, Jean Aitchison is putting forward a quite popular theory in the evolution of language. This theory can be expressed by the metaphor 'language is a

spandrel.’ It should now be clear that we use metaphors so that the vehicle will tell us something about the topic. Just as when I say something about language in the sentence ‘language *is* complicated’ so I will set up a similar expectation when I say ‘language *is* a spandrel’. Yet, at first sight, this is not a very successful metaphor. A spandrel is not a word that is generally known. Even if someone knew enough to say that a spandrel was an essential structural item in some buildings that had assumed a decorative role, this still would not reveal a great deal. Therefore Aitchison spends the first part of her act of analogy construction on describing the analogy’s ‘source domain’. The analogy is then given as a metaphor ‘language is a spandrel’.

The core metaphor is ‘language is a spandrel’. Yet a spandrel is a feature of a building that bears no superficial resemblance to language. This lack of surface similarity between a topic and vehicle can be regarded as the first hallmark of an analogy (Gentner and Jeziorski 1993: 450).

The question that then arises is how we should describe the nature of the relationship between the two domains. The analogy may arise from the metaphor where a spandrel is mapped onto language. A metaphor ‘language is a spandrel’ means almost nothing. The analogy arises when the writer expresses the parallelism between two logical arguments or narratives about two quite different things (Gentner and Jeziorski 1993). I illustrate this parallelism in figure 1, below:

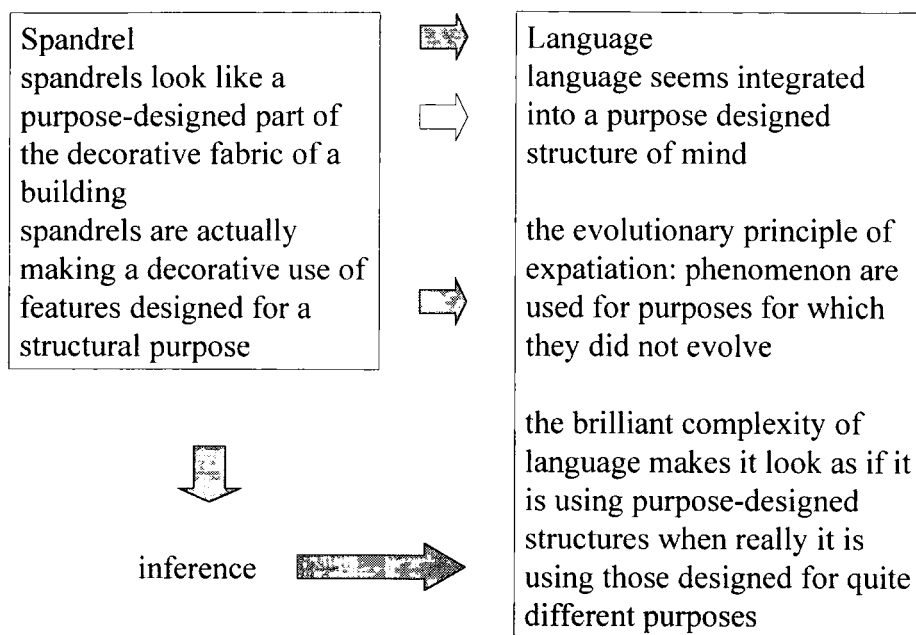


Figure 1

We are saying that because language is a spandrel there will be an equivalence between the arguments we can make about language and the arguments we make about spandrels. The argument of the source domain and the argument of the target domain have matching logical structures. This could be summarised as follows: x (spandrels or language) seems to be y (a key part of the architecture of neurology or a building) but x is not y (language is not a key part of our neurology just as spandrels are not key parts of buildings). This match between the arguments of the domains of an analogy constitutes another core feature of how analogies are constructed. It is this systematicity in the relationship between the domains which is one of the accessible features of analogy as opposed to metaphor (Winston 1980).

At first sight, it may sound like a surprising claim to suggest that an analogy allows us to think what we could not have thought of. However, we should remember that we have already shown how metaphors may exist in an implicit form, as proverbs, or

proverbial-like statements, waiting to track down and formulate ideas that might not otherwise find full expression. This quality of a successful analogy is its ability to provide an inference about the target domain.

The inference that we draw from the source domain of a 'spandrel' is that a structure can completely disguise the function for which it was designed by adopting another role. In the 'language is a spandrel' analogy, the inference is not very powerful because it does not itself produce the idea that it expresses. It does not enable us to think what we could not otherwise think of.

A more powerful example of the capacity of analogy to open paths to new ideas or at least to understand a subject from another perspective is provided by Holyoak and Thagard (1995) and their analysis of the Galilean proof that the earth could be in motion. An assumption was that dropping a stone from a tower proved the earth was not moving because a stone dropped from the top of a tower would fall to its base. Galileo showed this assumption to be flawed with an analogy whose core metaphor can be analysed as 'the world is a ship'. He argued that when you dropped a stone from the mast of a moving ship, the stone fell at the base of the mast. Therefore, by the same argument, the ship was not moving when everybody knew that it was. (Holyoak and Thagard 1995). Clearly there is no object or surface similarity between 'the world' and 'a ship.' However, Galileo discovered a systematic set of relationships between an action performed in the world and in the ship. He further suggested a set of causative relationships in one domain, which mimicked those in another. Arguably, such causative parallelism makes the analogy more powerful (Tversky 1977). It is important to understand that this is not to say that an event in the source domain is

causing an event in the target domain. The point is that if the target domain and the source domain both have a structure that could be described as ‘*if x happens then y*’, then they will establish a more systematic set of relationships (Gentner and Jeziorski 1993).

In our first example of ‘spandrels’ and ‘language’ the development of parallel causative structures is less apparent. In Galileo’s analogy, the relationship between the structures of the two domains is clearly symmetrical. Figure 2 may make this clear.

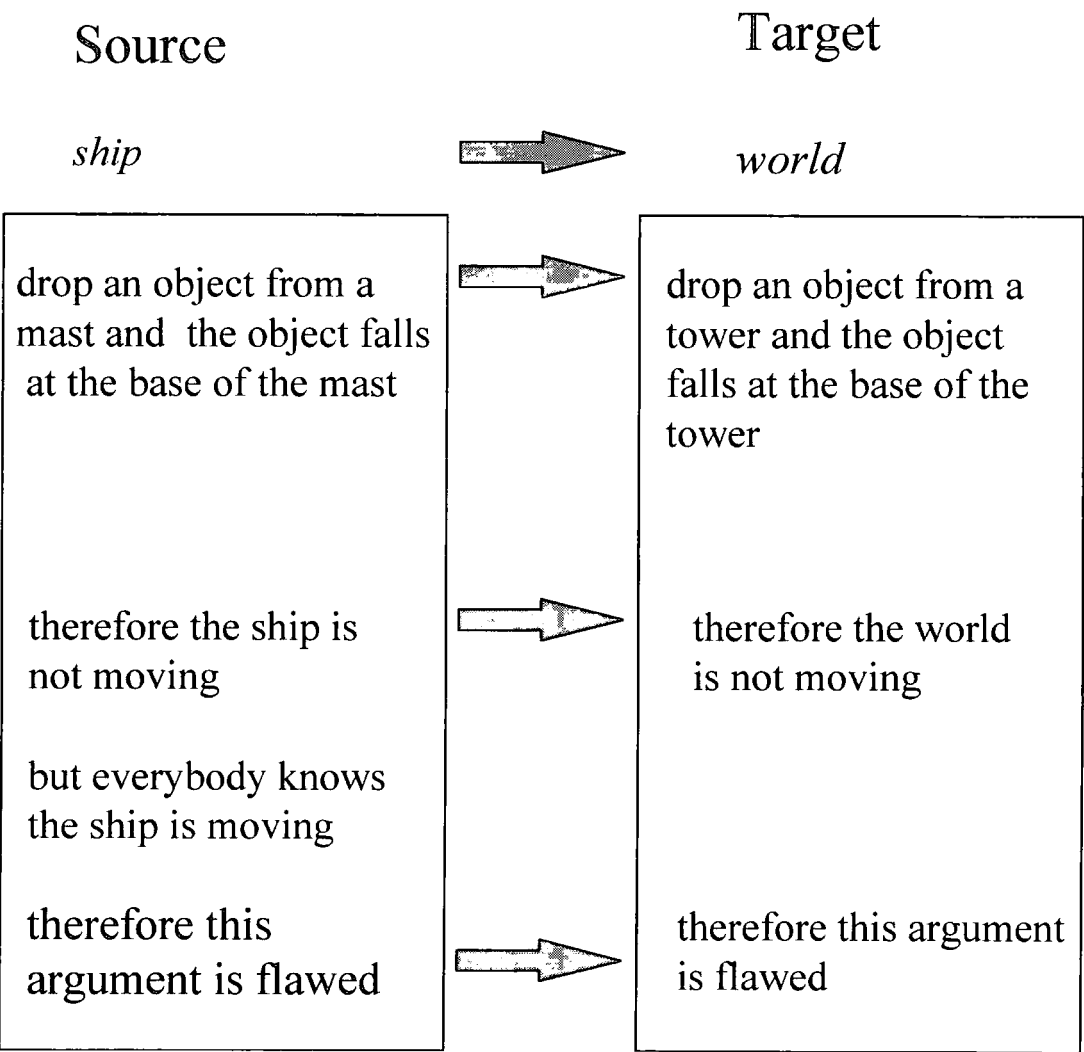


Figure 2

In both the source domain and the target domain of this analogy the logical structures are virtually parallel. There is an observation, the fall of an object in what appears to be a vertical trajectory, and a false conclusion drawn from it. There is evidence to show that adults generally prefer analogies that have this match in their relational structure (Gentner and Ratterman 1991).

The Galilean example also shows how the source domain of an analogy may have attributes that the target domain does not. These attributes can be used to explore the target domain. It is a case of putting arguments in a novel context in order to see them better. In this case, that attribute is the fact that the movement of a ship can be observed.

Analogues are often used to explore difficult arguments because they find new features which are not evident in the target itself. We can then use our capacity for inference to attribute those features to the obscurer nature of the target. This is why, for example, physics teachers will so often begin an elementary discussion of a difficult and unobservable phenomenon such as electricity by likening its behaviour to that of water. We even use aquatic language 'current' or 'flow' to discover the attributes of electricity that cannot be seen or conceptualised in another way.

2.4.1 Analogy: analogies, models and isomorphic relationships

Holyoak and Thaggard (1995) also discuss how analogies can be perceived as similar to models because of the isomorphic relationship between their two domains. An

isomorphic relationship means that when we perform an operation upon one component of a domain, the effect will be the same as if we perform it upon the other domain. For example, the items 'temperature' and 'mercury' have an isomorphic relationship. A change in temperature will affect a contraction or expansion of mercury such that the former phenomenon can be used to measure the latter.

A model and its subject, should have an isomorphic relationship. Thus, engineers may model the hull of a ship and put it in a wave tank. They will do this because they assume that the behaviour of the model when struck by waves will be the same as that of a much larger but equally proportioned object, provided that the ratio of the wave size and force to the boat's size is maintained. Or, put very simply, if a model that has a draught of six centimetres is capsized by a wave of twelve centimetres we can imagine that the same craft with a draft of six metres will be capsized by a wave of twelve metres.

This isomorphic relationship is what allows the capacity of analogy for inference. Thus, we can infer that the six metre craft will be capsized by a twelve metre wave without having to build it in the way that Galileo inferred something about the unobservable movement of the earth by modelling it as the observable movement of a ship.

It should further be said that analogies are not models, though sometimes the distinction is blurred. A model is conceptually parasitic upon the thing that it models. We identify the model boat as a model because it is a scaled-down version of a larger and more useful object. However, Galileo's boat remains itself even as it becomes an

analogue of the earth. It is not a model world by virtue of the experiment to which it plays host.

The fact that an analogue can take visual or concrete form does not make it a model either. For example, a young child may say that a cardboard box is a boat, sit in it, push it across the floor and call this rowing. The box now has an isomorphic relationship with an imaginary boat. If the box moves, the boat moves. We can deduce that the floor across which the box travels is the sea and the carpet to which it comes is the shore. However, the box is still finally a box and has an identity that is not a product of the object that it may be asked to imitate.

The example of the box reinforces one other more general point about analogy and metaphor. Analogy and metaphor are not necessarily verbal phenomena. The child names the box as a boat more with actions than with words. The analogue is created by the use to which it is put. The mapping of a box onto a boat is visual, or functional (on the grounds of the box's and the boat's shared capacity of containment) not verbal.

2.4.2 Analogy: proportional metaphor

It is also important to realise that metaphors can be distinguished on the grounds of how they may or may not lend themselves to development as analogies. Ortony (1993) suggests that there is a difference between a *proportional metaphor* and a *similarity metaphor*. Ortony's (1993) example of a proportional metaphor is given in 33, and of a similarity metaphor in 34, both below:

33 My head is an apple without a core (Billow 1975)

34 The man is a sheep

The argument is that the topic, 'my head', in 33, above, is not being likened to either the attributes of the apple or the core. It is the relationship between the components of the vehicle, 'apple without a core', or one of the absence of a centre, which is being mapped onto the topic.

I have also discussed how proverbs such as 'a stitch in time saves nine' also map relationally onto their target domain, as proportional metaphors or analogues. For example when a mechanic advises an apprentice that 'a stitch in time saves nine' they are not asserting a similarity relationship between sewing and car mechanics, but a proportional relationship between the consequences of not completing one action in time to stave off worse consequences. According to this view, we can modify our last argument that proverbs are vehicles looking for a topic and perceive them more precisely as analogues in search of a situation with which they can establish a proportional relationship.

Further, there is a view that proportional metaphors extend into analogies more successfully because they are, from the outset dependent on a match between the arguments of their domains (Paivio and Walsh 1993). Thus, example 33, above, (my head is an apple without a core) depends on the common absence of a core or centre from both the apple and the head. Yet this argument may require some qualification for two reasons. First, if the metaphor depends on the relation between the two

constituents in the source domain, it should never be gravely altered by a change in the identity of the two constituents. Second, if proportional metaphors are the basis of analogy then similarity metaphor should not be readily extensible into analogy.

In respect of my first point, if we consider example 35, below, we will find that the relationship between the constituents of the source domain, 'the chocolate' and 'its centre', is the same as between the relationship between 'an apple' and 'its core'. However, the meaning of the metaphor alters somewhat. The fact is that although the relationship between the constituents may be salient, the nature of the constituents will alter the manner in which the topic is being addressed.

35 My head is a chocolate without a centre

I could find an allusion to insanity in this metaphor, of a head that is about to melt and reveal its latent hollowness. Alternatively, it could be a description of a person who is admitting that they are appetising or attractive but intellectually empty. The point is that a given lexical domain will carry with it, varying sets of associations. Metaphor, itself, testifies to how we can highlight and suppress very different features in the domain of a given item of lexis. A domain cannot be semantically ring fenced so that it is reduced to a relational token in the power play of a proportional metaphor. Proportionality can never be more than an issue of salience in the description of metaphor.

The second point is that we are perfectly capable of developing similarity metaphors as analogies. The question: 'why is that man a sheep' could invite a long saga that

mapped a series of relational behaviours between the sheep and the man. For example: the sheep follows other sheep, the man follows other men; the sheep gets lost when the other sheep get lost, the man gets lost when other men get lost- etc.

This is not to deny that an analogy rests in the matching of relationships between the constituents of its source and target domains. Rather, I am saying that analogy rests more broadly on the manner in which the arguments of the domains are developed and that this may partially be dependent upon the wider frame of reference they evoke. The analogy does not rest in the nature of the metaphor from which it has been developed, even if some metaphors lend themselves more easily to analogical development. Finally, I suspect that an analogy lies not in the nature of the comparison being made but in the purpose to which it is put and the manner in which this draws upon the different constituents of the source domain. For example, there is nothing in the domains of the ship and the earth that could lead one to predict the way in which Galileo would use them.

2.4.3 Analogy: conclusions

To sum up the issue of analogy and metaphor:

- 1) All analogies arise from a metaphor, or a basic mapping between two domains
- 2) Not all metaphors are analogies

- 3) In order to become an analogy, the domains of the metaphor need development in an isomorphic parallelism from which inferences can be drawn
- 4) It is possible that all metaphors have the capacity to be developed as analogies (those who doubt this can try a parlour game where the players are asked to develop an analogy out of randomly matched nouns). Whether or not a metaphor is developed into an analogy must depend on the purpose for which it is coined.
- 5) There is evidence to show that interlocutors will find analogies more satisfactory if they are developed in such a way as to show a match in the relational structure of each of the domains (e.g. Gentner and Ratterman 1991)
- 6) Analogies and models share the property of isomorphism in respect of their target domain, but models are conceptually parasitic upon the target. A model explores the potential behaviour of that which it models. Analogies furnish their target domain with a context inside which that domain can be perceived anew.
- 7) Our capacity to draw inferences about the target domain from the source domain gives analogy a powerful role in how we argue and reason about the world. Inference allows us to reason about what we cannot know directly as a result of the events that we do perceive. We can have a physical experience of movement in a ship. We can never perceive the movement of the earth. Therefore we must infer features about the movement of the earth from the movement of a ship.

In sum, analogy can be an important tool in the development of thought, and its proper expression must be an essential part of the remit of those who foster language development as a key to all education.

2.5

Marked metaphors and elliptical similes

In this section, I would like to consider another more conventional and easily identifiable form of lexico-grammatical marking for metaphor, one which accords with conventional grammatical analysis.

A metaphor can have an explicit marker which actually employs the term 'metaphor' or some near equivalent (Goatly 1997). Thus, one can qualify a statement with 'metaphorically' or 'figuratively', 'figuratively speaking'. One can also use phrases to indicate that one is speaking in an unusual way, as in 'so to speak.' Such insertions, though not uncommon, are very much a metalinguistic afterthought with which a speaker disambiguates what they have just said.

Another more common use of language that may mark a metaphor is the insertion of 'like' or 'as' between the topic and the vehicle. However, according to a traditional rhetorical analysis, this turns the metaphor into another type of trope, namely a simile, as in 36 below:

36 And when it (love) is irrevocable, it is one way, like the path of a star (DH
Lawrence).

37 Irrevocable love is the path of a star

38 Irrevocable love is like the path of a star

Employing a truth condition argument about simile, one can hold that 36, above, is not anomalous (Davidson 1979). One can say that love is like the path of a star

provided it is like that. 37, on the other hand, challenges conventional analysis as ‘love’ is not ‘the path of a star’. Therefore in order for 37 and 38 to be meaningful one must first change it them into a simile as in 36. According to this argument, a metaphor is meaningful if it is construed as a simile. Metaphors should therefore be seen as elliptical similes (ibid).

Support for this conclusion could be drawn from the way in which a language such as Chinese may require an expression of similarity in place of the copula it does not have if it is to build an equivalent type of expression.

Another, rather different, conclusion could be that the copula ‘is’ in 37 (love is the path of a star) can in fact mean ‘is like’. Support for this conclusion would lie in the fact that a copula in a given language can have a variety of meanings. In 39, below, for example, the reference is to a state that in all probability will not endure, whereas in 40 it is to one that will probably continue:

- 39 He is in his room
- 40 The sea is deep

The difference in meaning is great enough for it to be signified in Spanish and Portuguese by the use of two different verbs: ‘ser and estar’. The example makes clear how the English copula is used to represent different meanings. Therefore, if the English copula is polysemous, there is no reason why it should not include amongst its meanings the concept of resemblance as well as equivalence.

2.5.1 **Literal and Metaphorical Similarity**

However, there are some quite powerful arguments to suggest that not all similes are marked metaphors. Gentner and Jeziorski (1993) distinguished between two types of similarity, a literal and a metaphorical one. Thus, a literal similarity would exist on the basis of shared visual or physical attributes. It would posit two domains sharing features of their construction or their appearance. This is illustrated by example 41, below. A metaphorical similarity on the other hand, as in 42, below, does not posit such a sharing of visual or physical structure:

41 The house is like the one in Spain.

42 This house is the one in Spain

43 This house is like a sliced melon

44 This house is a sliced melon

This distinction can be made clearer by the fact that if 'like' is omitted from 41, the sentence will change its meaning as in 42, both above. On the other hand, if we do the same thing with 43, we will produce a metaphor as in 44, with a meaning that may only change in its emphasis (*ibid*).

However, Kittay (1987) has contested the basis of this distinction. A problem is that similarity should suppose a relationship that is in some sense constant, rather as a relationship of equality or inequality is constant.

2.5.2 **Simile: constructing a model of similarity**

Goodman (1972) remarked how all things have trivial common properties, if only by the fact of being things. Tverski (1977) produced a model where the similarity of two items is a not just function of the features that they share but also takes into account the weighting given to these features. This model would ensure that one house could be declared similar to another because the styles of the roofs, the windows and the nature of building materials were shared. If these features can be considered important or prominent then the similarity would be strong. Equally, it would be hard to find much that was prominent or shared between a slice of melon and a house. Therefore the coefficient of similarity would be low. Working with the same example, we would not say that the notion of one house being similar to a melon would be only against very loose criteria related to shape. It should be clear that the problem with Tverski's theory in respect of metaphors or figurative similes is that it is an issue of individual judgement how one weights the prominence of features in any two items and the extent to which one finds them similar.

The problem becomes more acute where the similarities are sought between an abstract topic and a concrete vehicle. Accordingly, in Cooper's (1986) example, 45, below, 'eternity' may not have either the structural or visible properties from which the grounds of a similarity relationship can be deduced, a point that Lakoff and Johnson (1999) make in respect of the expression given at 46:

45 Eternity is a spider (cited in Cooper 1986)

Such statements are not capable of having a pre-established set of similarity relationships, arguably because the features of an abstract idea must be conceived within those of a concrete one. In other words, if eternity is similar to a spider, it is because the creator of the metaphor chooses it to be.

2.5.3 Simile: metaphors as class inclusion statements

One way round this problem would be to perceive a metaphor as an assertion of a similarity relationship, rather than as a discovery of one that really exists. This idea is not entirely distant from Glucksberg and Keysar's (1993) view, reinforced in a recent paper of Glucksberg and McGlone (1999), that metaphors are in fact class inclusion statements. One could simply push this idea a little further and state that some forms of class inclusion statement are in fact category assertions. By category assertion, I mean a statement where the language user is stating that item 'x', 'a bear', for example, belongs to a class or category 'y', brown bears, for example.

We relate to the world by creating taxonomies where its phenomena are arranged into categories of varying specificity. The need to make category judgements is crucial to human and also to animal survival. Fish, for example, will learn to recognise that some other species are unfit to be eaten on account of their bright colouring (Holyoak and Thaggard 1995). When unknown phenomena are brought within a category hierarchy, they are brought inside a framework of knowledge. This is a key to

survival. It is a case of knowing that a person is without hostile intent and can be admitted to a group under the category of 'friend'. To assign category, of whatever kind, is tantamount to bringing a phenomenon within a knowledge structure which will determine the kind of treatment it should receive. Forms and sensations that are unassigned will threaten with their arbitrariness and unpredictability.

According to Brown (1958: 140), a metaphor is a form of subordinate category relation (cited in Glucksberg and McClone 1999: 1542) except that the superordinate category is given the name of another. Examples 47 and 48, below, should make this clear.

47 Love is a direction which excludes all other directions (D.H Lawrence. Author's data)

48 Love is an emotion

The argument is that sentences 47 and 48 are doing roughly the same thing. Each is attributing a class to the their subject. In 48, the class is an 'emotion'. This idea is quite normal. Love will normally be included in this category. Few would dispute that. In 47 'direction' would not normally be the superordinate category for 'love' but for a point of the compass. Therefore 47 is an assertion of common category membership for the topic and vehicle, in this case a sense of movement towards a point. This category would normally be assigned to something else and that is why I use the term 'assertion'. A language user is attributing 'class' to items against the norms of a language community. They are asserting a relationship that we may not have seen as existing.

Because category formation is intertwined with survival and with knowing the world, it would follow that the achievement of a category relation is satisfying. Metaphor, particularly a poetic or artistic use of metaphor, is associated with the location and classification of phenomena that may have hitherto been unrecognised. When we find an item a taxonomic home, we know where it belongs and are therefore no longer puzzled or alarmed by its strangeness. This relief at finding a cognitive space for the unknown may account for the pleasure engendered by metaphor.

However, class inclusion arguments still leave us with the problem as to why this assignation of a category is acceptable and comprehensible. Class inclusion arguments instead of asking whether metaphors are understood through a similarity judgement must pose the same question to all class inclusion statements. In short, the issue of what is meant by similarity is simply transposed to the wider issue of a category judgement.

In the metaphor, 'my job is a jail', 'job' and 'jail' are placed in 'the common category of something confining and unpleasant' (Glucksberg and McGlone 1999: 1542). The sharing of category may constitute the basis of the metaphor. Yet the problem is then one of why this category can be successfully shared and whether this sharing of a category does not itself constitute the specification of the grounds of a similarity relationship.

It could be that when a speaker says that 'Juliet is the sun' they are asserting that Juliet belongs to the sun category because she holds the property of 'brightness' in

common with that star. We are in fact invoking a similarity relationship in order to strengthen the assertion we have made. We do so because similarity relationships have huge significance for us, one rooted in our survival. This is not the same as saying the topic and vehicle are similar, rather, that the metaphor is partially creating the grounds of similarity that it employs (Camac and Glucksberg 1984). Further, we can accept that in the case of many metaphors the grounds for these similarities are not immediately apparent. The metaphor stands for an assertion that a similarity relationship exists and that its particularities should be explored. The success of the metaphor may depend upon the strength of the relationship that is discovered and this will in turn depend upon the other sets of similarity relations that we have stored and schematised.

The belief that metaphor is stronger than simile is a traditional feature of rhetorical analysis that roots in Aristotle's work, the *Rhetoric* (Gibbs 1994). By this argument, a simile is hedging its act of class inclusion. Saying 'Juliet is like the sun' would put Juliet more on the periphery of the class of 'suns' or brilliant objects that she is held to belong to. 'Like' is a kind of qualification. Juliet is 'like' this class of solar objects, not part of it. 'Juliet *is* the sun' insists that we situate her inside the category itself making a stronger assertion that we must look for the grounds of her belonging to it.

One might take this further and ask if metaphors are not in fact mimicking the features of a class inclusion statement in order to create a sense of category membership, where the real grounds for this are weak. As I have said, conferring category membership upon strange phenomena is an act that is fundamental to our survival. Giving category membership to an item, saying an animal is a horse for

example, entails suppressing the features that mark it out as different from other horses. On the other hand, to say that something is simply 'like a horse' is to allow it to retain a greater sense of its individuality. In this sense, I could say that similes are exclusive in that they assert the integrity of the items being compared. Conversely, metaphors are inclusive in that they compromise the integrity of their domains by asserting that the target should be reduced to certain features that permit its inclusion inside the source domain.

2.5.4 Simile: problems with similarity-based theories of metaphor

The class-assertion argument encounters an immediate problem. Metaphors may be an assertion of 'class' that engenders a similarity relationship but the source and target domains of many successful metaphors do not seem to share any basic similarities. The metaphor 'love' and 'a journey' for example, have no grounds for similarity (Lakoff and Johnson 1999) even though one may be likened to the other or be attributed to the class of the other in the metaphor 'love is a journey'.

Yet the argument that 'love' and a 'journey' are not similar may be to over-simplify our notion of similarity and resemblance. Such metaphors may be what Glucksberg and Keysar (1993) call proportional in that they are based on a sharing of argument structures by the source and target domain. Thus, love departs from a 'beginning' and achieves a destination just as a journey does. The two domains have matching arguments. These matches are grounds for a similarity relationship, though the match is conceptual not visual. Now, it is true that there is no way of seeing 'love' in this

way before it is conceptualised in space as a kind of journey. Love is a relationship, not a walk in the park. But once we assert that the similarity relationship is there then we give ourselves means to chart the matching arguments that insist the source domain is somehow like the target domain.

A further problem raised by Lakoff and Johnson (1999) about similarity is that even when a source domain and a target domain do share a similarity relationship, we do not make this relationship into the basis of how we use the two terms (ibid). For example, a metaphor that commonly enters many, if not all, languages, is 'knowledge is sight'. Thus, we commonly substitute the verb 'see' for the verb 'know' or 'understand' as when we say 'I see' after grasping some point. Furthermore we could argue that 'see' and 'know' do share a similarity relationship as our strong predisposition to visual processing means that 'knowledge' is largely confirmed through 'sight'. However, there is no sense of similarity in the actual usage as one cannot literally 'see' what somebody 'means' (ibid).

It is undoubtedly the case that we do not 'see' what 'somebody means' yet it would appear to be the case that we talk as if we can. Arguably, we talk as if we can because our sense of a similarity between the fields of knowing and seeing has facilitated our a transfer of information about 'sight' to 'knowledge'. In short, if knowledge is similar to sight then the things that we can know can be treated as the things that we can see.

Another problem summarised by Lakoff and Johnson (1999) is that a given item, such as marriage, cannot be similar to two totally different phenomena at the same time.

Thus, if we agree the truth of a statement such as 'marriage is a business partnership',

we would be unable to find meaning in 'marriage is children' because marriage could not be similar to two such different things and remain the same thing (ibid).

However, this last assertion may over-identify a similarity relationship with an equality relationship. It is obvious that when 'x' equals 'y' and 'y' does not equal 'z' then 'x' does not equal 'z'. Yet it is not obvious that when 'x' is similar to 'y' and 'y' is similar to 'z' then 'z' is similar to 'x'. For example, sentences 49-51, below, show clearly how a given item 'my house' can be similar to two other items that are not similar to each other. This is because different features are used to construct the similarity relationship.

49 My house is like Julie's because our walls are the same

50 My house is like Helen's because the doors and windows are the same

51 Helen's house is not like Julie's because neither the walls, the doors or the windows are the same and Helen's house is largely timber while Julie's is largely brick.

Therefore, my conclusion is that we cannot hold the topic and vehicle of a metaphor to share abstract or visual features such that they can be said to have a pre-existing similarity relationship. However, I can argue that we as a species motivated to seek out such relationships by our need to form categories. A metaphor acts as a trigger to that search and its success engenders the satisfaction that can only come from having afforded a conceptual home to the strange and the unknown.

Such a process may make it seem difficult to understand how we can as a species or as one of its tribes agree upon the similarity structures that a given metaphor will evoke. In short, we can quite often agree that one metaphor works whereas another does not. The solution here is to suggest that we have common patterns of mind that will help us to find the same sets of similarities among those divergent things. These will be discussed in section 2.8, below.

I have put forward the notion that it may not be possible satisfactorily to identify or describe metaphor according to formal linguistic criteria. However, one form of metaphor may be closely related to the type of grammatical expression from which it is held to emerge.

We should first note that in some grammars the aspiration is to deduce form as an abstract set of principles that generate meaning through the systems they impose. This is true of Chomsky's generative grammar (e.g. Chomsky 1959, 1965 and 1985). A quite different analysis would hold that a grammar evolves from the types of meaning that a language is seeking to express. The SFL (systemic functional linguistic) analysis of grammar is such an approach. The notion of grammatical metaphor derives from the desire to account for a linguistic anomaly as identified by an SFL approach where the grammatical role of an item is determined by the class of meaning that it has. This anomaly does not apply to metaphor generally, though SFL theory can be extended to account for that. It applies to something that happens within grammar, as it is understood by SFL. In order to explain and examine grammatical metaphor, I first need to summarise the basis of the SFL approach to language.

2.6.1 **Grammatical metaphor: fundamentals of the SFL (systemic, functional, linguistic) position: Field, Mode and Tenor**

First, the SFL view is that a grammar is a product of the meanings that a given language is trying to express. A language itself should be perceived as a representation of the meanings that the members of a given society wish to represent so that they can communicate them to each other. Because a society will also furnish the context in which a given communication occurs and from which its meanings are derived, a language and its context are inextricable (Thompson 1996). A social context and a language affect each other (Lemke 1995). A social context is structured by language, and structures language in its turn.

A social context consists of the variables *Field*, *Mode* and *Tenor*, where Field focuses on institutional practices, Tenor on social relations and Mode on channel, or the method used to communicate the message (Martin: 1997: 4). ‘Field’, ‘mode’ and ‘Tenor’ combine as the constituents of *register*. They reach into language as *metafunctions* or as the broader labels of the communicative purpose of the text at any one moment.

Field has an ideational role in language, Mode a textual one and Tenor an interpersonal one. Broadly, the ideational components of language deal with the types of meaning that are being represented, or what the meaning is about. The textual component concerns the organisation or ‘flow’ of the message within a text and the relationship of the text to other texts (Martin 1997: 4). The interpersonal components

concern the type of social interaction for which the text is constructed, for example, journalist to the public or friend to friend.

I illustrate the ideational, textual and interpersonal components of text with example 52:

52 Crumbly pastry encloses jammy fruit in a wodge of almond paste. If you want to really plump your tarts out use Merchant Gourmet Mi-cuit semidried plums (call 0800 731 3549 for stockists). (author's data)

This text appears in a Sunday Times magazine so that its Field component belongs to magazines and their representation of the topic of cookery with the implicit advertising that may arise from this. The interpersonal component is the address of the culinary commentator to their public. This form of address is characterised by a certain informality, evidenced in the choice of non-standard language, for example 'wodge' and 'jammy', and the use of the second person pronoun as if to draw the reader into the writer's kitchen. The conditional 'if' gives choice to the reader and respects them as able to withdraw from the text's insistence on a given procedure. Intertextually, the example is also quite complex. Obviously it draws some aspects of its structure from other culinary texts and the fact that it precedes the handing out of more explicit recipe instructions. It is also operating in a textual context of brands, labels and telephone numbers with the set of intertextual relations that these draw upon.

2.6.2 Grammatical metaphor: congruency and the construction of meaning

It should now be clear that a key feature of the SFL position is that language should be analysed as a function of the meaning it is seeking to express (Halliday 1985). Thus, the grammatical system of a language will be wedded to the expression of different types of meaning. Let us consider examples 53 and 54:

53 I saw him at dawn

54 I hit him at the end of his shift

Traditionally, sentence, 53, above, consists of a subject, 'I', a verb, 'saw', an object, 'him' and a prepositional phrase or adjunct 'at dawn'. It should also be clear that if we are not working in a generative frame, we could deduce the subject from an analysis of the meaning of the sentence. We might look for the part of the sentence that is initiating the action. However, if we look at 54, above, we will notice that this sentence has exactly the same structure: subject, verb, object and prepositional phrase. Yet, we will also see that the subject is initiating an action in a much more direct sense than in 53. 'Hit' in 54 is clearly an action with a direct physical impact. 'Saw' in 53, above, is not an action at all but a mode of perception.

We can say that the subject in 53 is a *Senser* because it is sensing something that occurs and that the subject in 54 is an *Actor* because it is accomplishing an action. We

can now make a further judgement that a *Senser* will typically be an animate subject. This is because animals have the capacity of seeing, hearing and feeling whereas objects do not.

Another SFL term is *congruent* (Halliday 1985). Example 53, above, shows a congruent use of language because a *Senser* is typically an animate creature that senses events and, in this sentence, it is. Equally, 'saw' is normally a 'mental predicator' that discovers a 'phenomenon' and, here, it is. This usage is 'congruent' because the grammar and the lexis work in harmony with the purposes from which they first arose.

According to Halliday (1985), then, congruent language is in some sense 'natural'. Congruent language will closely reflect the physical relationships in which language is grounded. Example 54, above (I hit him at the end of his shift), illustrates a clear set of physical events. The structure of language has evolved in order to express this set of physical relationships. By the same token, this type of congruent language is held to be typical of the speech of children because it reflects the simpler sets of physical relationships that make up their experience (ibid). The same should hold true for adults who are not inducted into uses of language that have grown up in order to recount a very specific set of social meanings as these are constructed in specific kinds of text.

2.6.3 Grammatical metaphor: aspects of the SFL position: grammatical metaphor as a departure from congruency

As already said, according to the SFL view, language and context interpenetrate and structure each other. A given context is a socio-linguistic product. As it evolves, it may oblige a given group of language users to communicate messages in ways for which its grammar was not explicitly designed. In other words, a context may start to detach language from the set of physical relationships in which language begins.

Another example, 55, below, makes this clear:

55 Dawn found him there

56 He was there at dawn

Congruently, the verb, 'find' requires a subject that is a *Seeker*. A Seeker should also be an animate being since 'seeking' is a function that presupposes the ability to initiate an action. Equally, 'dawn', as a time, might normally require a prepositional phrase, or adjunct, 'at dawn'. Accordingly, 56, above, is a congruent reading of this phrase. Example 55, above, departs from congruency because items in it assume grammatical functions they should not normally have. In this case an adjunct becomes a subject, or perhaps a locative subject since it is putting the person in a place. We could therefore call this an adjunct to locative subject metaphor (Downing and Locke 1992).

It is noteworthy, that I have used the phrase, 'departs from congruency' but avoided the simpler, adjective, *incongruent*. I am doing this because Halliday (1985) explicitly



rejects the term, incongruent. He does this because incongruency has an implication of deviance. Neither grammatical metaphor, nor metaphor per se is held to be a deviant form. Metaphor in SFL, whether grammatical or lexical, represents a socially inspired departure from a usage of language that is grounded in the physics of the world as they might normally impact upon us.

2.6.4 Grammatical metaphor: forms of grammatical metaphor

As I explained above, the SFL analysis of language refers back to the interpersonal, the ideational and the textual components of language. Grammatical metaphors can also be analysed in terms of these constituents. For example, one interpersonal function would concern an expression of doubt in respect of the information we want to convey. Typically, we would do this with a modal verb, as in 57, below. However, we might also perform this function with the verb ‘think’ as in 58:

57 It may rain

58 I think it’s going to rain (Halliday 1987)

A congruent use of the verb, ‘think’ would be to represent a mental process. Therefore 58 is a grammatical metaphor because it shows a *Process* functioning as a modal. This can be shown through a tag test (Halliday 1987), shown in 59 and 60 below:

59 I think it’s going to rain, isn’t it?

60 I think of people who are no longer here, don’t I?

If we want to make a question by tagging 58, we have to tag the auxiliary ‘is going’ as in 59. One can argue that this is because ‘think’ is not the main verb, but is operating as a modal. This becomes clear if we look at example 60, above. In 60, we use a tag that agrees with the verb ‘think’, thus showing it is the main verb. The tag in 60 shows that think, here, represents the cognitive process which, congruently, it should name.

One interpersonal function, common in academic and bureaucratic texts, is the disguise of ‘the source of a modality’ in order to ‘make it more difficult to query’ Thompson (1996). In 61, below, nominalisation is used to ensure that a process ‘undress’ is used not as a verb but as a noun subject. An instruction is made part of an established order that tries to compel obedience.

61 No undressing on the beach, by order.

62 Uncertainties surround the origins of this form

In 62 above, *Attributes*, in this case, ‘uncertainties’, are not congruent because they operate as an Actor in order to disguise authorship and ensure that the text’s assertion cannot be challenged. The text appears not to have been written but to exist as one of the indisputable facts of the universe it is supposed to evoke. In this sense, grammatical metaphor evokes the larger metaphor of the author-less text. Kress (1989) likened such texts to ghost ships, evoking the story of the Marie-Celeste, as a

craft found in perfect condition but without its crew. Similarly, such texts have just drifted into view, complete and comprehensible but with no author at their helm.

It should not be thought that a grammatical metaphor is necessarily an instantiation of a single metafunction such as Mode. Arguably, several components of meaning configure 61 and 62 above. 62 (uncertainties surround the origins of this form) is the product of an agreement that has established that this metaphor is an appropriate form for this type of text, thus showing an intertextual effect. Equally, the Field of 'notices enforcing by laws' is stamped all over 61, (no undressing on the beach by order), thus indicating the effect of this metafunction.

Example 63, below, also instantiates different metafunctions, though one suspects that the Field component is uppermost:

63 Oil price rises may inflict some damage on the prospects of economic revival in the Far East

64 Oil prices have risen therefore the economic revival in the Far East may not happen as expected.

Example, 63, above, is a cause and effect statement. One event, 'a rise in oil prices', will affect another, 'economic revival'. Arguably, a congruent representation would require that an event, 'a rise in oil prices', would be given a causal linkage to another, 'economic revival', giving something like 64, above. The grammatical metaphor is

again contained in how a Process, 'rise', is an Actor that is construed as able to 'damage' an event. It is also a consequence of the nominalisation of the verb, 'rise'.

Halliday (1993) has suggested that literacy itself has imposed a nominalising 'pressure' on language. Literacy has been ascribed a tendency to extrapolate language from the physical relationships of the phenomena in which its structures are partially grounded. Scholars such as Ong (1986), and, less assertively, Olson (1994) have attributed to literacy the capacity to reify language or raise it as an object that we can scrutinise and examine. It is arguable that reification also entails the capacity of language to interact with itself as a system that does not seek justification in the facts of the world.

In the world, as we perceive it, there seems, for example, to be a natural boundary between 'actions' and 'things'. 'Actions' can only be represented as an effect upon an object. 'Objects' are indubitably there. 'Actions' and 'objects' therefore have a different status that is encoded in language as verbs and nouns. Therefore a grammatically congruent use of language implies that verbs primarily represent actions and nouns primarily represent objects. In 63, above, two actions, 'rise' and 'revive', impact upon each without the mediation of objects. They impact upon each other as if they were things.

The representation of one process as having a causal impact upon another extricates causal sequences from the world of physical phenomena through which they are manifest. This type of representation is crucial to scientific and most western philosophical thought, hence Halliday's (1993) contention that scientific literacy has

precipitated this kind of tendency. Furthermore, the SFL interest in grammatical metaphor has engendered a further focus upon it as an abstraction that makes more difficult the comprehension of scientific language (Halliday 1993 and Ravenelli forthcoming). Therefore, grammatical metaphor has become a concern for those who teach students to produce the types of text in which nominalisation or nominalised cause and effect processes have become an important constituent.

2.6.5 Grammatical Metaphor: problems with the concept of grammatical metaphor: the issue of scope

The notion of metaphor as a grammatical disjunction may suggest one way to give one form of metaphor a clear identity. But it would be wrong to give the impression that this quite limited analysis is altogether without problems.

First among these is the location of the metaphor itself. When I examined Goatly's (1997) analysis of metaphorical scope, I found that a metaphor can have effects beyond the parts of speech in which it appears to be located. Thus, at first sight, a metaphor may appear to be focused on a verb as in example, 19, above, (the tall ships *nodd*ed as they passed by). I noted that in fact the entire sentence may have to be read metaphorically in order for this use of the verb to make sense. I could say something similar about a grammatical metaphor.

In grammatical metaphors, as in examples 47, 45, 46 and 55, above, a disjunction has occurred between the lexico-grammar and what it should conventionally express. As

said, the disjunction in these examples relates to the fact that a congruent subject function has been displaced. Nonetheless, there is no certainty that the metaphor is actually located in the displaced function of the subject, or for that matter, in the lexico-grammar at all (Holme forthcoming). Sentence 65, below, is a slightly extended version of 55, above (dawn found him there). Examples 65 and 55 could argue, that the verb, 'find' has simply been lexically extended in order to allow the transitive expression of what in the world is the coincidence of two events. Thus, we would not suppose that 'the dawn' has gone off to look for the end to an event. We might rather think that 'find' might be an economical way to refer to 'broke and cast its light on' to give 66 as the congruent reading:

65 Dawn found them at the end of their shift

66 Dawn cast its light on them at the end of their shift

Of course moving the location of the metaphor does not normalise the structural peculiarity in which the grammatical metaphor resides. One may simply be constructing a rationale for this particular grammatical metaphor. Thus, an extension of the term 'find' requires that the adjunct functions as a Senser in this case. However, we would then have to say that the lexico-grammatical incongruency is a product of the metaphor and not the metaphor of the lexico-grammar.

2.6.6 **Grammatical metaphor: problems with the SFL view of metaphor: congruency and language change**

Another problem with the SFL position concerns the notion of congruency, and the difficulty of knowing when an item is congruent or not. It is widely accepted that metaphor plays a considerable role in language change (e.g. Fox 1994, Heine and Reh 1984, Heine and Reh 1991, Hopper and Traugöt 1993, Langacker 1990, Thompson and Mulac 1991 and Ullman 1962). For example, in a process traditionally known as *catachresis*, a word is first used as a metaphor to mean something different from that for which it was intended. It may then come to represent that object or action more consistently than its original signification. Thus, the word, 'pursue' is currently used more in the metaphorical sense of 'pursue a course of studies' than in the original sense of 'following a person from place to place' (Sinclair 1991). A popular example (Ullman 1962) is that of the Latin for mouse, 'musculus', which was used to represent muscle, perhaps because it represents something small and animate, inside the skin. Over time the metaphorical meaning becomes the dominant one and the word itself may change in order to represent that which it originally represented. In this way, metaphor allows two or more words to be created out of one. Our sense of the new word as a metaphor will vanish as it becomes part of our normal usage. The word may become polysemous, representing its old meaning and its new, metaphorically extended one. Alternatively, as in muscle, after a transfer across languages, the original meaning may be lost and another word will come to represent it, perhaps through alteration to the phonology of the old. In short the metaphor will die as a new term is born from it.

Although it has only now become central to the diachronic analysis of language, this process of catachresis was given implicit recognition in the Hegelian discussion of dead metaphor, described in the introduction (section 1.2.1). Hegel recognised that metaphor had to be allowed in deductive argument if it could be termed dead because its meaning had entered the lexicon with an agreed signification. An implication is that metaphor changes the agreed meanings of language and is thus a factor in language change.

I have described how SFL does try to anchor metaphor in more objective, linguistic criteria. For example, as already observed, the interpersonal metaphor, ‘I think it’s going to rain’, can be discovered through a ‘tag test,’ where the tag ‘isn’t it’ highlights ‘rain’ as salient, thus showing ‘think’ to be a metaphor of modality (Halliday 1985). However, although such a test may elucidate the referent of ‘think’ as Modal rather than Process it says less about why such a reference should be construed as metaphorical in late twentieth century English. It may be that this is simply a case of, ‘think’ as process, being extended in order to create ‘think’ as a modal. In short the grammatical incongruency may originate in a lexical extension that occurs under the pressure of metaphor as a process in language change.

The problem for an idea of congruent meaning is the same as for an idea of literal meaning. This is that finally there is no way of knowing when a meaning is literal or congruent. Metaphor is a feature that puts language in a state of flux, unfixing a meaning from one domain and shifting it towards another, where sometimes it may stick and sometimes it may not. The issue of what is literal or not is an issue of social agreement at any one time (Elgin 1983), and we are unable to stand outside our own

society and determine quite when this has happened at any given moment of use. The stabilisation of a metaphor as a congruent form is therefore more a feature of the phylogenesis of language. Therefore, the issue of whether a sentence such as 58, above, (I think it's going to rain), is metaphorical should no longer depend on how we analyse its grammar but upon how we perceive the historical development of the meaning of 'think'. The problem becomes one of largely subjective judgement as to the degree to which the verb's new form is considered conventional and thus literal (Holme forthcoming).

2.6.7 Grammatical metaphor: the problem of congruency: metaphor and the ontogenesis of language

The above-mentioned problem of deciding whether or not a metaphorical extension has become congruent, can be called a phylogenetic one. However, the SFL notion of congruence also has an ontogenetic nature (e.g. Martin 1997).

Congruence aspires to a notion of 'directness' as if to imply, also, proximity to some less mediated form of expression (Halliday 1985). The geometric metaphor itself suggests symmetry, as if in the sense of a language that is in symmetry with an unmediated unfolding of events. Since congruent language supposes 'directness', metaphor itself can be associated with a departure from childhood, also from speech itself and, more generally, from natural language and its grounding in real world events. Metaphor, therefore, is arguably a feature of mature language use.

Grammatical metaphor, in particular, is treated as a symptom of a late phase in the ontogenesis of language.

However, the assumption that metaphor is more to be seen as a symptom of mature language use may be unwarranted. Certainly, this assumption goes to the core of what we think metaphor is about.

2.6.8 Grammatical metaphor: the problem of congruency: metaphor and the ontogenesis of language: metaphors in children

The question I now want to ask, is whether it is really true that metaphor should be associated with mature language use. This question is important for our notion of metaphor as a departure from congruent language use. It also has a more general importance in respect of our enquiry into what metaphor is. This more general importance derives from the fact that if metaphor is a cognitive process that underlies our intuitive conceptualisation of new meaning then it would be surprising it were not exploited by children when faced with a need to express phenomena for which they have no language.

Certainly it appears true that infant language is grounded in the world of physical objects. Even 'verbs' are relatively slow to appear. Infants' language differs from that of their caregivers in that they produce many more nouns than their caregivers do (Bowerman 1996 and Parisse 1999). Yet even this quite low-level naming of objects is based upon some quite developed capacities of mind. Markman (1994) sets out

three assumptions that infants must exploit when they develop their ability to name objects. These assumptions are:

- *the whole object assumption*
- *the taxonomic assumption*
- *the mutual exclusivity assumption*

The whole object assumption is what allows children to treat a given object as a whole, rather than a set of distinct parts. They can therefore intuit that the name for an object does not refer to a part of an object but to an object itself. Thus, when a carer points to the arm of a toy bear and says ‘teddy’, the infant can understand that the whole object and not just the indicated part is being referred to.

The taxonomic assumption is of particular interest to the thesis I am putting forward. This assumption allows children to treat phenomena as similar enough to each other to belong to the same category. Having attached the label ‘bird’ to a sparrow, they can re-attach it to a crow without prompting. I would argue that this taxonomic assumption supports a capacity to over-generalise a given category, making birds into insects or insects into birds.

The mutual exclusivity assumption means that children tend not to give one object two different names. However, the fact of having a single name for a given object does not proscribe the attachment of that name to other objects. In fact, sometimes, very young children will produce only one word which they use very generally, without seeming to feel a need for other words.

Therefore, it would seem correct that infant language is very much rooted in the world of objects. Even actions, manifest in their impact upon objects, would appear to have a very reduced presence. However, it is also noteworthy that in order to speak, children must make similarity judgements of some kind and form categories upon the bases of these. Markman's (1994) taxonomic assumption underlies an ability to give a willow, an oak and a beech the name of tree. This assumption is one part of the quite elaborate cognitive development that must precede language. .

The appearance of metaphor in children's speech is particularly problematic because it should now be clear that we are not actually sure what a metaphor is. We do not know its scope inside a sentence. The question of when it becomes a part of conventional language use is also uncertain. Evidently, the issue of whether a given child's utterance is metaphorical or not must partly depend on how we describe metaphor.

Metaphor has been suggested as useful for teaching young children. The Suzuki method of violin teaching, for example, routinely personifies the violin and the child is urged to treat the strings as hot, cold and fragile (Gibbs 1994). Such a use of language may be a partial response to the impoverished nature of a specific musical lexicon. However, it would seem to assist rather than impede the understanding of its younger users.

Piaget (1962) observed the use of metaphor in young children, with a child producing utterances such as a 'river is like a snake' (Gibbs 1994). Winner and Gardner (1993)

suggest children may be shown to deal in metaphor at any age at which their understanding can be tested. However, one problem in knowing when a given phrase is or is not a metaphor arises from children's common use of both lexical and grammatical over-extensions. Example 67, below, shows this type of extension at work. The child has learnt 'strangle' as 'to hold tight round the neck' then construed this as 'to hold tight round the wrist' when it will normally only apply to the neck.

67 Stop strangling me! (child to an adult holding them tight by the wrist)
 (author's data).

Winner in an extensive (1988) study of children's metaphor excluded these types of over-extensions from her definition of metaphor use. Her view was that language could not be considered metaphorical if the child was using a metaphorical extension to name a phenomenon for which a word already existed in the lexicon. Other research has supported Winner's (1988) very limited view of metaphor by casting doubt on the ability of young children to make a conscious response to the peculiarities of figurative language. Asch and Nerlove (1960) and Cometa and Eson (1978), for example, have looked at the ability of children consciously to interpret metaphor. Asch and Nerlove concluded that when we present children with decontextualised metaphors, they will interpret them literally. As Gibbs (1994: 404) attests, this has led to the view that children pass through a literal stage in their linguistic development (e.g. Asch and Nerlove 1960, Cometa and Eson 1978). This type of literal stage would concur with the SFL view of the infant as initially treating language as a manipulation of signs that represent objects. This idea can also be sustained empirically by the word counts and the tagging of parts of speech by Bowerman (1996) and Parisse (1999). Yet children do show a remarkable capacity to

deal with more abstract relationships and similarities between concepts (Gibbs 1994). Gentner (1977) has attested to their ability to deal with spatial analogies, for example. And it should be remembered that analogy explores the relations between the argument structures of two domains, thus extrapolating away from any sense of a metaphor as built upon a sense of physical similarity. Equally, Marks et al (1987) have shown how pre-school children have engaged in what could be termed a cross-modal mapping (cited in Gibbs 1994: 413). Children can therefore map the perception acquired through one sensory channel (e.g. sight) onto another (e.g. sound), making them capable of understanding synaesthetic metaphor (e.g. a bright sound).

More recent research has also cast further doubt on the view that children begin the acquisition of their first language by attaching a given item of lexis to a given meaning. There is no clear sense of a literal or symbolic stage where words stand for a particular item. Clark (1999: 32) describes how children will speak words without any clear idea of their meaning. They will then 'map' a given word onto a particular meaning. Nerlich et al. (1999: 365) suggest that these mappings can be termed over-extensions when they are principled. The principles applied are perceptual similarity, the fact that one item is seen to be like another item, conceptual contiguity, as for items that are perceived as bordering, joining or touching each other, and items that are actually related in space and time.

Finally, it is worth pausing to consider exactly what is involved in the creation and understanding of these lexical over-generalisations such as 67, above (stop strangling me) and 68, below:

68 It's a sun moon (three-year old child looking at a full-moon) (author's data).

Winner (1988) suggests that very young children do not produce original metaphor in the sense of trying to represent meanings for which the lexicon has no equivalent. But this non-use of metaphor may be simply because the child's world does not contain meanings for which the lexicon has no equivalent. From a research perspective, 'new' should only mean 'new to the user'. Accordingly, if a child uses metaphor to force a term to mean something it does not normally represent, calling the first donkey they see a dog, they are doing this because they do not know the term that would normally be used. They are in the situation of the adult who confronts a phenomenon that the lexicon itself has not yet named. If metaphor is to be implicated at all in category extension then it must emerge less as a linguistic fact and more as the cognitive process that underlies the child's attempt to represent meanings that are new to it (Holme forthcoming).

Sentence 68, above (it's a sun moon), shows how a child perceives the fullness of the moon and conceptualises it through the sun because they do not possess the adjectives of shape or brightness to do otherwise. The sun is an object that exists in the domain of the moon. The domain might pertain to light-emitting objects in the sky. The sun's circular shape and brightness are made salient by their being mapped onto the target domain of the 'moon' by which it has been evoked. The metaphor thus employs the three categories of Nerlich et al. (1999: 365). The sun is contiguously related to the moon because both bodies exist in the same conceptual space. The sun has a perceptual similarity because its shape is used to describe the moon. More remotely, there may be some literal spatial relationship, as both objects occupy the same sky.

Scholars such as Winner under-estimate the phylogenetic evidence against what is made as purely an ontogenetic argument. We have already discussed how there is substantial evidence to show that metaphor acts as a mechanism in language change. Catachresis involves the extension of given language towards new meanings through metaphor. Every adult confronts meanings for which they do not have an adequate and ready-formed means of expression. Equally, when the child's lexicon is underdeveloped, they may lack a sense of category and its symbol for a phenomenon they encounter, therefore they extend one that they already have. Further, it is not difficult to assume that the child's instinctive deployment of metaphorical extension to compensate for their own lexical deficiencies will mirror the more consciously mediated process through which adults extend the greater lexicon in order to deal with the conceptual novelties that arise.

Sentence 68, above, (it's a sun moon) is a clear instance of catachresis and as such shows how metaphor-making in language expresses an innate cognitive capacity. 68 is a direct and spontaneous use of language and it clearly reveals how metaphor as a cognitive process can respond to its user's semiotic need. As such a response, it represents an act of what Hopper and Traugöt (1993) would term subjectification, pitting a language's response to an individual's cognitive or expressive need against its wider mission in respect of furnishing a given social group with an agreed set of representations for meaning.

The point I am making here is that from the outset, even as a child grounds language in physical phenomena, they are playing with the categories that they thus create. It

may be that even in the early stages of language acquisition the grounding of a child's language in the world of objects and things is being interfered with by an ability to abstract the features of one item and map them onto those of another. From the outset, metaphor as a cognitive process disturbs the status of language as anchored to one set of physical or 'felt' events by extending it towards others. Such an extension supposes a notion of early abstraction, for things cannot become other things, unless they have come to exist as mental constructs.

Finally, I would conclude that when discussing grammatical metaphor (or any other form), we should be aware that metaphor is not a characteristic of mature language use. It can be perceived as part of the process whereby the child extends language made meaningful by one context towards another for which they do not possess an agreed means of expression.

2.6.9 Grammatical metaphor: the problem of congruency: are grammatical metaphors difficult to understand or do they just express a difficult meaning?

Sentence 70 is one congruent reading of 69, below:

69 The US's decision to release 30m barrels from its strategic petroleum reserve helped to push oil prices back from a peak of \$34 a barrel (Financial Times 1/10/2000).

70 The US government decided to release 30m barrels from its strategic reserve.

Thus, the US government helped to push oil prices back from a peak of \$34 a barrel.

In 70, the direct cause and effect relationship of 69 is no longer expressed. Instead a linking adjunct, 'thus', is used to underscore the cause and effect relationship of the two sentences and their expression of two otherwise separate events. Yet the adjunct may not render this relationship as clearly. I would argue that the adjunct may even make the logic of the relationship more remote and difficult to grasp. The grammatical metaphor grounds the cause and effect relationship in a physical one when the linking adjunct tries to express logic as it has evolved towards a more abstract connection. The grammatical metaphor employs the relationship of one object impacting upon another, then causing its movement. We can conceive of the two 'processes' as if they were objects in process of impact.

Langacker (1990) perceives reification as being at the core of language. Arguably, this is the interpretation of actions as things so that we can understand their impact upon each other. We may indeed prefer to think in a language that is grounded in the physical clash of objects. This impact of one object upon another is better represented by a grammatical metaphor than by its congruent substitute. Adjuncts are an abstract entity pointing up an abstract relationship. They may also have been derived through a path schema and a metaphor of spatial relationships, as can be seen in how a word such a 'hence' retains a spatial meaning (depart from hence) while being able to act as a logical connector. Grammatical metaphor represents abstract relationships through a

metaphor that treats actions or events as objects. In doing so, it makes causative relationship between them clear.

A larger point is that grammatical metaphor may seem to emerge, not as a departure from congruent language but as an exploitation of the natural or direct relationships within it. I will return to this point when I start to explore the physical basis of metaphor.

2.6.10 Grammatical metaphor: what we can learn

Grammatical metaphor is a concept that may identify forms of language use that sometimes have a strong association with written language and modes of scientific thought. The identification of such forms as ‘metaphor’ rather than simply as a grammatical phenomenon ‘nominalisation’ may also have a pedagogical implication that I will explore in the second part of this thesis.

My discussion of grammatical metaphor has been wide-ranging, and I have pursued in some detail because it has wider implications for our view of metaphor as a whole. I will now summarise what these implications might be.

- 1) It is difficult to be certain that a given grammatical metaphor is not in fact derived from a lexical extension. Therefore the identification of grammatical metaphor as a grammatical anomaly may not tell us much about where the metaphor really resides. It is still difficult to identify a metaphor as having a specific grammatical

form or linguistic form forcing the cognitive conclusion (e.g. Gibbs 1994 and Lakoff and Johnson 1999) that metaphor is more in the province of thought than language

- 2) Grammatical metaphors are an accepted part of current language use. There is therefore a sense in which they have become literal, and this will depend on how far a given community accepts them as such. Thus, what is literal and figurative in a language may simply depend upon the judgement of a group of native speakers as to what is a conventional or unusual usage at any one time (Elgin 1983)
- 3) Grammatical metaphor is associated with mature language use but this may simply be because it deals with conceptually difficult ideas. Very young children use metaphor to plug their semantic gaps just as adults do. Therefore, like adults, children use metaphor when they use a word to refer to categories that it does not normally apply to.
- 4) Grammatical metaphors may pose difficulties not because they are incongruent but because they represent ideas that are conceptually difficult. Grammatical metaphors may actually help to clarify the conceptually difficult ideas they represent. Grammatical metaphor may be a cognitively appealing way to deal in difficult and abstract ideas.
- 5) If the SFL notion of congruent language is grounded in the direct representation of physical events and objects then these representations may actually be a means through which abstract ideas are conceptualised. Therefore, a grammatical

metaphor may not be a departure from congruency but an exploitation of the more direct representations of congruent language that helps us to understand a difficult conceptual relationship (Holme forthcoming).

I will show later how this view of grammatical metaphor is useful for teachers who want to make nominalised cause and effect structures more comprehensible by grounding them in the physical relationships through which they have been conceptualised (section 4.6.5). Students can grasp this use of nominalisation, not as a grammatical abstraction but as the metaphor of one object striking another (section 4.6.5.2).

2.7 Contiguity, metonymy and category construction

Contrary to some recent opinion (e.g. Gibbs 1994 and Lakoff and Johnson 1999), I have argued that we build metaphors around a similarity relationship or at least the search for the same. However, I should also point out that that some important figurative uses of language are clearly not dependent on a notion of similarity, at least in their pure or prototypical form. One such use is traditionally known as '*metonymy*' and its related form, '*synecdoche*', both of which may at least prototypically employ a *contiguity* relationship between their two terms.

When it is interpreted literally, contiguity entails a spatial relationship, or the sharing of a common border. Thus, if we say 'a nice set of wheels', we are using 'wheels' to represent a car, not because they are in any sense like a car but because they are a very important part of one. Wheels and car thus have a contiguity relationship and 'wheels' in 71, below, are a metonym for car.

71 You've got a nice set of wheels.

When it is expressed in terms of physical space, the idea of contiguity is clear. A difficulty is that it may be possible to stretch out the idea of a contiguous or spatial relationship until it may start to become metaphorical. For example if we use 'an oak' and 'a pine' to represent the category trees, we could argue that this is contiguous because oaks and pines are included *in* the category of trees and 'in' supposes a kind of spatial relationship. Another schema of category representation is 'possession' as

when 'pines' are held to 'belong' *to* the tree family. Possession is also associated with an idea of spatial proximity, at least in origin. In a concrete sense, only 'have' what is in the hand and what is in the hand is close to us. In these examples, space no longer organises physical reality; it becomes purely conceptual and clearly our notion of contiguity must become conceptual also.

If a contiguous relationship is the defining feature of a metonymy then it is clear that metonymic thought is as restricted or as extensive as our notion of space. If we include conceptual space within our definition then contiguity must become conceptual also.

Knowing where metonymy ends is important to our discussion because it might help us to find where metaphor begins. Furthermore, like metaphor, metonymy is also essential to the new concept of mind towards which this thesis intends to redirect language teaching. Metonymy cannot be perceived as a surface use of language any more than metaphor can.

Gibbs (1994) asserts the centrality of metonymy when he shows how most acts of description involve part-whole representations of a kind that characterise the trope. For example, in 72, below, a larger forest is evoked by the mention of a few of its trees in a similar way to how in 71, above, the larger category of car is evoked by one of its parts.

72 He marched along beside the outlying trees; beeches and oaks; sentinels of the
 vast and varied forest beyond.

Overly detailed descriptions are rarely satisfying. Cognition copes better when a larger scene is evoked by some of its parts. This may therefore be a key function of metonymy. The trope may also reveal something even more important, giving a clue to how we construct and manipulate categories and thus to how we how we organise reality itself (Lakoff 1987).

Rosch's (1975 and 1978) revolutionary contention was that categories were not stable and consistent entities to which phenomena did or did not belong. Thus, we do not recognise robins, eagles and ostriches as birds because they share such features as beaks, wings and feathers. Further, we do not set up a 'bird' category as meaning the sharing of the features, 'beaks, wings and feathers'.

Rosch found categories to be anchored in cognition by a prototypical example. When studying how Americans formed the category of 'a bird', Rosch found that it was most often around the robin. The robin was central to their idea of what a bird was, with such species as the blue-jay, canary and blackbird, also being important. Species such as an ostrich was clearly peripheral, with the penguin and the bat ranked at the extreme edge of the class (Rosch 1975). A category, then is not a defining set of features that pre-selects which items belong to it and which do not.

Lakoff (1987) developed Rosch's ideas towards a conception of radial category construction. This radial model makes a more powerful assertion of Rosch's contention that there is not a set of shared features which predetermine whether something is a member of a category or not. The members of a category which radiate

out from the central prototype do not always share any of the features of the prototype. Lakoff (1987: 85) cites the case of Japanese young women giving a child to an older woman to raise. That older woman does not exist within the English language model of motherhood and cannot be predicted by our prototypical example of it. She does not have a core biological or legal relationship to the child.

In his work on definition, Wittgenstein (1953) predicts Lakoff's work on radial category construction, and his concept of family resemblance is now used to build some cognitive theories of category construction (Ungerer and Schmid 1996). Wittgenstein held that finally definition was impossible because the nature of a given category such as 'games' depended on the resemblances between its family of members. The resemblance between one group of the members of the 'game' family for example, chess, draughts and backgammon, might not be the same as that existing between another group, patience or running toy cars across the floor. Equally, according to a notion of radial category construction, a family member who is perceived as 'distant' cannot necessarily be linked to one who is seen as central (Lakoff 1987). Nonetheless, a chain of resemblances can be traced from the central member towards the outlying one. This chain means that adjacent family members are similar even if they do not share traits of similarity with all who are not adjacent. In this way, Uncle Tom may seem to be central to a family's conception of itself. He may have an uncanny resemblance to his sister, Aunt Edwina in every respect apart from her eye and hair colour. Aunt Edwina could also resemble her cousin Jane but only in respect of her eye colour and hair colour. Jane and Tom do not resemble each other but they share resemblances through Edwina. In this way people belonging to a family may not all appear to resemble each other. Yet despite this, we are able to

evoke a concept of category without difficulty. Such an evocation may depend on a metonymic facet of mind which, just as it allows us to evoke a whole car through one of its parts can let us evoke a whole category through one of its members. Metonymy may therefore play a part in how we grasp categories.

2.7.1 Contiguity and metonymic relationships: the meaning of metonymy, synecdoche and contiguity

Before taking this discussion forward further, I should first make clear what is meant by *metonymy*, *synecdoche* and by *contiguity*. Broadly, a metonym is a figure of speech where:

- one part of an entity stands for the whole
- one item of a category or group stands for the category or group
- single items are used to evoke a larger set of items with which they have a schematic or mentally established association (Lakoff and Turner 1989)

In example 73, below, ‘I saw two sail’, the association between the item being represented (a ship) and the item representing it would have been very close when such expressions were used. The sail is virtually a part of the ship, although a detachable one. The part stands for the whole.

In 74, below, furniture constitutes a larger category than tables and chairs, particularly when it refers to the entire contents of a house. Tables and chairs thus stand for the wider category of furniture.

75 shows how we can construct a place as representing a group of its inhabitants. People are tagged by the city in which they work.

73 I saw two sail

74 He moved out all the furniture in the house, stacking tables, desks and chairs at
the end of the garde

75 This is London calling

76 The ballot box and the bullet (cited in Gibbs 1999)

However, although Lakoff's (1987) description may give us an idea of the types of metonymy that we are likely to encounter, the nature of the relationship between a metonym's two parts will still need further thought.

The case of 73, above, is clear. Such examples can be categorised as expressing a relationship of partonymy for the clear reason that they are part of the idea that they represent (Seto 1999). This type of expression is traditionally called a synecdoche, which can be categorised as a sub-class of metonymy. My view is that synecdoche is prototypical metonymy since the contiguous or partonymic relationship is not in dispute. 73 also illustrates the role of metonymy in category representation (Lakoff 1987). We have a collection of objects, sails, ropes, hull and hawsers, etc. The objects all share a nautical function. They belong to a category of ship construction. They

represent their larger family through their most conspicuous member, the sail. In this case, the family members are also attached to each other. They share spatial borders.

The normal meaning of contiguity is sharing a spatial border. Part-whole relationships, such as that shown in 73, above, are clearly contiguous. However, contiguity may have a larger more general meaning. In the case of 76, above, for example, one might argue that London, the city, contains the people who broadcast from it. There is therefore a spatial relationship based upon inclusion. In 77, above, this spatial relationship becomes even less clear. An abstract idea, namely, ‘armed conflict’ is represented by one of the weapons with which it is waged. War is waged with bullets. Bullets exist in the field of war. They are therefore part of war’s space, but in this instance the space is perhaps conceptual and a clear idea of contiguity is lost.

Ullman (1962) argued that metonymy arises when two terms are within the same conceptual domain. This allows us to include taxonomic relationships within the idea of metonymy because things that exist in the same category will belong to the same domain of meaning in some sense. A ‘bullet’ will exist in the semantic domain of ‘warfare’ and the ballot box in that of a peaceful electoral process.

75, above (London calling), poses a greater problem, to the domain argument, however. It is clearly not metaphoric in that people broadcasting from a city are not evoked by that city any more than are its plumbers, carpenters and bus drivers. At the same time there is a sense of contiguity in that the people are located in the city that stands for them. But if the semantic domain of a city will incorporate everything that

exists in cities then there would be little that the name 'London' could not represent. Finally, we would need a very stretched concept of a domain in order to sustain Ullman's argument. Gibbs (1994) gives the more powerful example of how restaurant staff may refer to client by what they have ordered as in 'the ham sandwich is ready for his check'. Sandwiches and people are semantically related only remotely. However, they do in this instance establish a contiguous relationship.

It is clear then that the basis of metonymy is difficult to discover. Some metonymies are based on clear contiguous relationships. Some represent a larger idea of category. Some operate within one semantic domain and some operate across domains.

2.7.2 Contiguity and metonymic relationships: metonymy and metaphor as the opposite axes of language

Jakobson (1971) built a larger theory of language upon this contrast between metaphor and metonymy. Like Saussure (1983), Jakobson perceived that we create meaning with signs either when we combine them with another sign or through selection and substitution. In this last process, language users select 'certain linguistic entities' then combine them into 'linguistic units of a higher degree of complexity' (Jakobson 1971: 72).

The act of combining signs to create meaning is broadly a function of syntax. For syntax, finally, is the ordering of signs into meaningful patterns, whether as clauses or sentences. Like syntax, metonymy is combinative in that it pulls together elements

that are already in spatial juxtaposition, the head for the person, or the house for its occupant. Metonymy is therefore associated with the syntagmatic aspect of language. Metonymy is combinative. It summarises the relationship that brings a sign and a meaning together.

Metaphor, on the other hand is selective and substitutive. Metaphor is substitutive because it represents one meaning through another, thus substituting it. This substitutive effect belongs to the paradigmatic aspect of language.

Jakobson based his argument on the studies of aphasia resulting from damage to different areas of the brain. Damage to the area known as Broca's is associated with defective combination and hence metonymy. Damage to the area known as Wernicke's is viewed as critical to the substitutive role and hence has a link to metaphor.

2.7.3 Contiguity and metonymic relationships: metaphor and metonymy as two sides of the same coin

However, there is some uncertainty over whether aphasic studies and association tests actually provide the distinction that Jakobson implies (e.g. Kotch 1999). Further, it is not difficult to analyse metonymy as having some of the attributes of metaphor. Searle (1993), for example, views metonymy as a subclass of metaphor on the grounds that one thing is representing another through a different phenomenon.

By this token, a man of a large sexual appetite was once described and represented through the metaphor of a 'goat', doubtless because of the apparently frenzied mating habits of that animal. This appears to offer a clear instance where a relational similarity motivates a substitutive relationship. "Goat" substitutes for a kind of man because their patterns of behaviour are seen as shared. The source domain, 'goat' is thus mapped onto the target, 'a man', as in 'you are quite a goat'.

Gibbs (1994 and 1999b) recognises that mapping is a constituent of metonymy but still holds that the mapping is of two approximate concepts. Since a 'goat' and a 'man' are not approximate, its use would be more of a metaphor than a metonym. Example 77 is used to summarise the distinctive nature of a metaphor:

77 The cream puff was knocked out in the boxing match (Gibbs 1999b: 62)

78 All hands on deck!

The term 'cream puff' can be used to describe a boxer without the boxer actually being mentioned. 'Cream puff' thus substitutes for the boxer in the manner that a metonym, 'hands' substitutes for the people who will work with them in 78. Yet, there is a crucial difference. Pastries do not belong to the same domain as boxers. Therefore 77, above, is an example of metaphor, not metonymy (Gibbs 1999b).

2.7.4 Contiguity and metonymic relationships: how mapping does not make metaphor and metonymy the same

Yet the issue is also the basis of the relation. In the example of the restaurant client and the ham sandwich discussed above, one would assume that the client has not acquired the features of the sandwich as a result of the mapping (though some who have worked in restaurants might recall such features being conferred). The sandwich is a label or tab through which the individual is identified by association.

Another difficulty concerns the reason why we use metonymy. For example, why do we say, ‘all hands on deck!’ instead of ‘all sailors on deck!’ In this case, the reason is clear. Physical work is generally categorised as manual, or done with the hand. This is another metonymic representation since the entire body and mind are used. Hands are used not because they are a metonym of the body but of the types of activity they carry out. If one employs sailors or puts them to work, one does not see their mind or their leg hauling rope, one sees their hands. Certain types of work make hands salient. Hands can thus be symbolic both of the work they do and the larger person that works.

The point I am making here is that the relationship through which a rhetorician might define a trope, in this case, part-whole, will not provide us with a psycholinguistic rationale for its use. People are ‘hands’ because of the cultural perception of certain types of work. The domain of work sets up the trope even though the representation is part-whole, of a body by the hand. The trope, therefore, cannot be altogether isolated within the relationship that it has to what it represents. Such a system of

representation requires a more extensive notion of a 'domain' of meaning, involving, perhaps, a substantial set of inter-related activities and meanings as may be held together by the way in which a given culture will frame the activities of its members. Such a notion is better constructed by Lakoff's 1987 notion of an Idealised Cognitive Model or ICM and the related concept of a radial category, just introduced.

2.7.5 Contiguity and metonymic relationships: metonymy as a representation of an Idealised Cognitive Model (ICM)

The ICM embodies not just a set of associated meanings for a given term, but extends also to the larger set of attributes that is provided by a culture. For example, a dictionary definition of a cow might talk about its being a bovine quadruped. A view of meaning as constructed out of several components might talk about some of these as +quadruped +female +bovine, but this fails to evoke through that single instance, the cow, our larger cultural construction of these animals, with their ponderous but productive bulk. This larger conceptualisation of the animal is furnished by its ICM.

A reference to this larger construction also asserts the metonymic nature of language. We can talk about a given instance of a 'cow', for example, denoting one animal trundling down our village street. However, this single example evokes through its class membership the category itself as it is constructed from the ICM (Lakoff and Turner 1989). In Western culture such an ICM might evoke an image of a milk - producing animal heaving its swollen udders between field and milking stall, In India, it would be a sacred encapsulation of fertility and a wider sacred principle.

ICMs may also help us to explore why metonyms establish themselves in language and hence expand our notion of what they are. As said, ICMs are mental constructs about the meaning of a given item that are imbued with the effects of a given culture. This cultural effect can account for the relative salience of some attribute of the ICM, which may in turn result in the way in which a metonymy is constructed. Radden and Koceses (1999: 21) give as an example, the evolution of the word 'hearse'. A hearse had come to summarise a larger set of ICMs associated with the apparatus of death: 'the dead body, the coffin, the bier, the tomb, the funeral pall, the framework supporting the pall and the carriage for carrying the coffin. The movement became salient, perhaps because it was eye-catching (ibid: 20-21) or perhaps because of a greater cultural emphasis upon the procession as the public face of death. Cultural salience thus provides a kind of metonymic 'tab' through which we can mentally handle the entire ICM, as well as others that may be contiguous to it. The procession stands for the larger apparatus of the funeral. Thus, the meaning of hearse focuses on the procession. The processional vehicle stands for the procession and finally 'the hearse' means the funeral vehicle only. I illustrate this in figure 3, below. I also look at the example of 'hands' for work and 'hands' for the person and thus at the evocation of two different ICMs in a single instance:

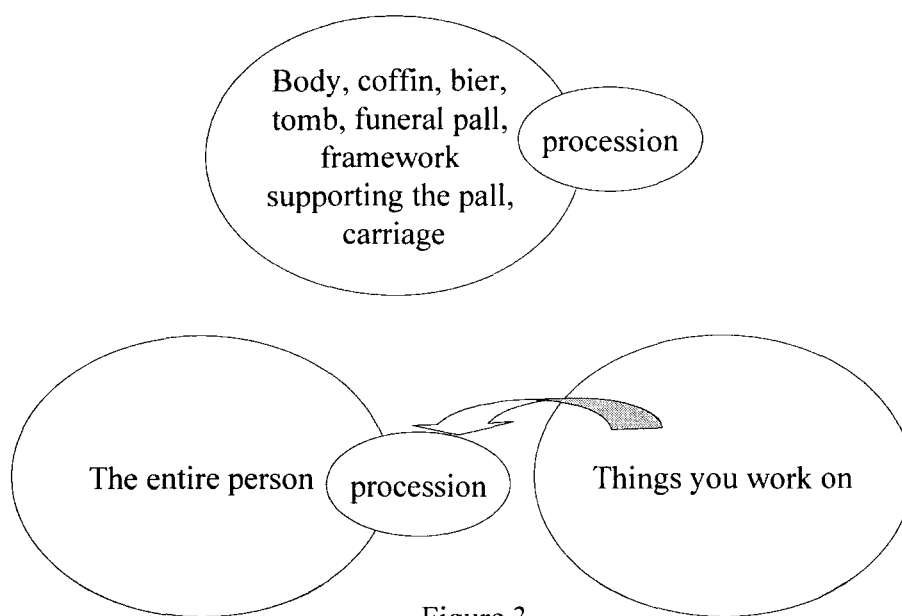


Figure 3

Radden and Kovecses (1999) make an extensive analysis of the types of relationship through which a given item may become salient within an ICM, thus allowing it to stand as a metonym. In order to do this, they suggest that there are three types of ICM:

- those that deal with the inter-relationship of signs to the concepts they evoke
- those that construct reference
- those that connect concepts.

Sign metonymies allow us to evoke a concept through a specific instantiation of it. Dollars evoke the idea of money, for example. It is difficult to imagine a reverse instantiation of concept for form, such as the idea of money evoking dollars, unless through a 'tip-of-the-tongue experience' where we have an idea but cannot find a sign to express it. Another possible example can be provided by 'foreign language

learning, where learners cannot find a form with which they are familiar and which they know that they need' (Radden and Kovecses 1999: 24).

Reference deals with the wider area of how a given item in the world is evoked through a form. Thus, one can have:

- Form-concept for thing-event: the word 'cow' for real cow
- Concept for thing/event: concept 'cow' for a real cow
- Form for thing/event: word form *c-o-w* for a real cow

The idea that 'form for thing' is metonymic can be reinforced by how people see words as somehow inclusive, or *part* of what they represent (ibid: 26). Metonymy also subsumes the meaning of one sign, such as 'the person', within another, 'the hand' or 'the head'. By the same token, the sign, in linguistics, can be perceived as *inherently* meaningful or as containing its meaning.

At the conceptual level, we shift beyond the representation of an idea simply through a form, and extend it to that of the concept. For example, when we say, 'the buses are on strike' (ibid), 'bus' cannot be an event because it is incapable of strike action. It is a concept or an ICM requiring a driver who thus becomes what it will evoke.

More importantly, the idea of the cultural salience of the vehicle (e.g. a hearse as a procession, the driver as their moving bus) helps to explain why some metonymies work and some do not. Example 79, below shows how 'buses' can be understood as standing for the people who drive them:

79 The buses are on strike (ibid)

They can do so because our ICM of strike action is of an event precipitated by working people. Also, ‘drivers’ are essential to the action of the vehicle that stands for them, Conversely, if I say ‘the seats stopped at the lights’, meaning the bus, this is an unsuccessful metonymy because ‘seats’ are not salient in the ICM of ‘stopping a bus’.

In respect of differentiating metaphor and metonymy, however, we may simply have shifted the problem elsewhere, from *the domain* to the ICM in other words. The ICM might provide a useful clue to the relationship that underlies metonymy, Yet, like the domain, it has no clear boundary, put is part of a network of overlapping mental models. These models allow divergent forms and concepts to stand for each other without yielding a clear idea of whether one is metaphoric or metonymic. Likewise, if we wish to retain an idea of contiguity as underlying a metonymic relationship, we have first to perceive contiguity as conceptual or metaphoric and thus as representing the mental proximity between concepts.

2.7.6 Contiguity and metonymic relationships: the problem of delineating an ICM (idealised cognitive model)

It may be that the problem of the delineation of an ICM arises from the nature of what is being delineated. When discussing analogy, I argued that it was difficult to define a metaphor as purely proportional when it was dealing with words whose meanings

would effect the nature of the relationship being discussed. Thus, to liken one's head to an apple with out a core was not quite the same the as to liken it to a chocolate without a centre. Even though the centre-periphery relationship is retained, it is not the same because the ICMs of a chocolate and an apple are so different. Each evokes another set of concepts, sweetness, fibrous flesh, seeds and their corresponding essentialism, brown flesh, or whatever. Our conceptualisation of a thing is not confined to that thing, although it may be largely limited by the need for an economical system of lexical processing.

The point is that the symbolic nature of the lexicon, where a given word evokes a given ICM, is continually being threatened by the other ICMs with which that concept is associated. The extent of the undermining is partly a function of the degree of abstraction in which a language user will engage. For example, a form, 'head', that has a specific referent, an animal passing through a pen, will have its evocative nature constrained by its spatial connection to that specific instance, the passage of head through a pen. The nature of the activity 'counting heads (of cattle)' ensures that a partonymic relationship is simply that. The cow remains a creature and nothing more. However, an extrapolation of that creature from its existence in time into an unassigned mental representation, a concept, will mean that our model of that creature is no longer the sum of its parts, or even of place in which it exists. The cow is now a bundle of other ICMS, of thoughtless rumination, of egotism, of the negative feminine stereotype and thus becomes an insulting way to represent a woman.

A conclusion could be that we start with a functional need; to count cattle or construct an insulting image of a neighbour. The functional need determines how we construct

the ICM; the cow as a physical form or the cow as a bundle of unappealing features. This construction supposes different levels of abstraction that will in turn keep the object conceptually and temporally intact, as head and hoofs moving through its here and now, or as an obese and ruminative abstraction than can jump barriers of time, space and species. In this last function, the spatial connection between concepts is stretched even beyond a conceptual existence and we find ourselves embarked upon a course of conceptual exploration that carries us quickly into the territory of metaphor and the mapping of unlike things onto each other.

2.7.7 Contiguity and metonymic relationships: how metaphor and metonymy overlap

It should now be becoming clear that metaphor and metonymy emerge from each other and that while it is possible to point to extreme cases where they *are* distinct, it is much more difficult to identify the point where they *become* different. It may therefore be simpler to think of them as existing in a complex (Goossens 1990) whose peripheries are defined by a literal contiguity at the metonymic end and a created conceptual contiguity at the metaphoric point. At the final pole, the topic is so different from the metaphor through which it is evoked, that it is finally, re-conceptualised or reconstructed by it. Thus, ‘eternity’ *is* ‘a spider’ simply and only because someone chooses to evoke it as such and invites others to hunt down the associations arising from the category membership that is insisted upon.

I can make this clear in figure 4, below:

The metonymic- metaphoric continuum

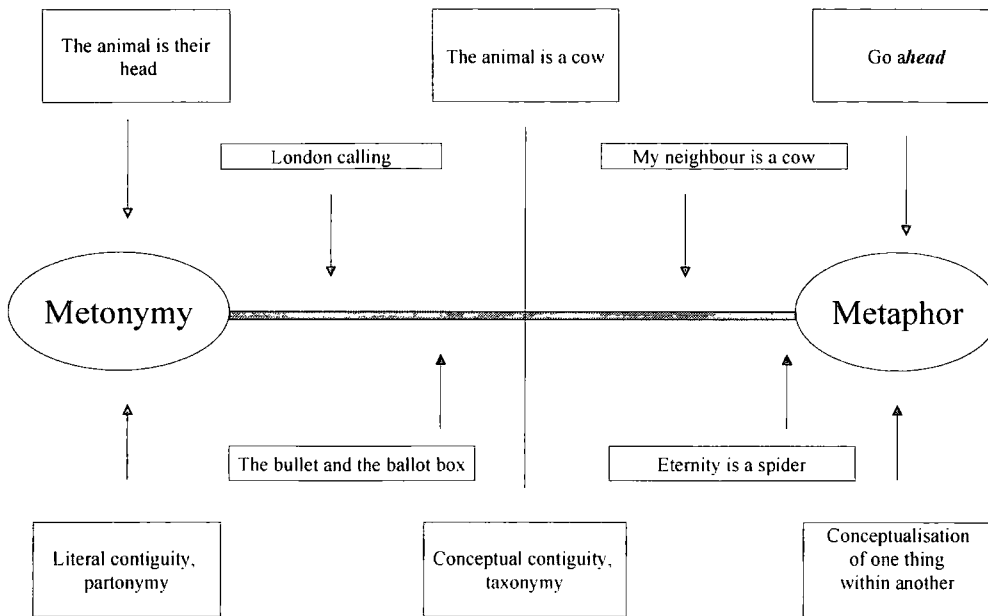


Figure 4

At one end of the above continuum, we can be secure in our notion of a metonymy, because the underlying and literal spatial relationship is clear. Moving towards the centre of the continuum, the identity of forms and the relationship between them grows less certain. At the end point, we reach the situation of an idea that is chiefly grasped through a metaphor. The idea cannot be grasped without the metaphor. It is conceptualised through it, as something else in other words, and in order to accommodate the matching of two domains an act of category creation must occur. The example given is a preposition 'ahead'.

A key idea in cognitive linguistics is how abstract meanings such as the emotion of anger are largely constructed out of our bodily experience of the world, and of the mental experience of our bodies (e.g Johnson 1987, 1991 and 1993). Thus, anger is associated with heat because it may engender bodily heat (Lakoff and Johnson 1980).

By this token, Heine (1997) has looked at the origins of some prepositional meanings as rooted in how we orient our bodies towards space. In English, we can see this in the contrast between the adverbs of movement 'ahead' and 'back' with our sense of direction being derived from its association with these body parts and the head's associated visual orientation. Thus, to go forward is to follow the direction of the head, and to do the opposite is to follow that of the back, hence the adverbs 'ahead' and 'back'. Arguably, these adverbs are a step away from realising a more grammatical role in the form of prepositions.

Conceptualisation is a key notion in cognitive linguistics and goes to the core of cognitive explanations of metaphor (e.g. Lakoff and Johnson 1980 and 1999). For now, I am using this idea to represent an extreme view of metaphor in that it shows how one idea, such as the orientation of the head is being used to give form to another, that of forward movement. The abstract nature of movement in a given direction means that it cannot be conceptualised in its own terms. We can only think about it through the orientation of our bodies. Although the independent existence of the phenomenon is not open to question, our mental manipulation of it is entirely dependent on metaphor. Therefore this is metaphor's most extreme case. It is very different, for example, from describing a house as an upturned ship, since houses have clear and physical independence of ships and we require the idea of a ship only to visualise a peculiar feature of one example. Of course 'ahead' now belongs to the symbolic system in language. We have given it a meaning which is passed on with the language. However, in origin the term involves an extreme act of meaning creation, recalling how the 18th century philosopher, Vico, ascribed to early language users,

supreme poetic feats because they were engaged in an on-going use of metaphor to name an unnamed world.

I should stress that this model represents a continuum. As such it represents the uncertain dividing lines between one form and another. It is difficult, for example, to know whether the notion of 'space' in the expression 'the race for the White House' should be classified as figurative and conceptual or as literal. The White House stands for a rank whose holder resides in the building of that name. The problem then turns around whether a rank can be located in a building. In order to accept that it can, we have to treat a position, the presidency of the USA in this case, as an object or as synonymous with the office-holder. The notion of contiguity arises, therefore from a prior metaphorical treatment of the items at issue.

Gibbs' (1994 and 1999b) example of the 'ballot box and the bullet' stretches our sense of a genuine physical relationship still further. Bullets exist in the field of warfare but that 'field' is itself a semantic rather than a literal enclosure of space. Likewise, towards the further pole, one can argue about the exact position of an assertion of class membership such as 'my neighbour is a cow'. The question is the extent to which the metaphor reinvents the person through their attributed, bovine category and the extent to which they are able to retain their human identity, but seen, as if through the filter of the cow's form.

In 'eternity' is spider, we may retain a grasp upon what eternity is, but because that notion cannot be visualised as a physical entity there is a sense in which the spider may crawl away with the concept it describes. The metaphor clearly has a relational

form in that there is some property in the structure of eternity with that of the spider, perhaps as consuming a human creature trapped in their web by the limits of mortality in a web that is being woven and rewoven without end.

Metaphorical language posits a flexibility in how we interpret sign-meaning correspondences. It threatens the integrity of the symbolic system, suggesting that items can stand for what they are not. The suggestion that one thing can become another in the world of mental representation also means that one thing can become another to different degrees. There are no clear dividing lines between tropes because figurative language itself entails a blurring of the divisions between the items with which it deals.

**2.7.8 Contiguity and metonymic relationships: autism and metaphor:
the metaphoric and metonymic poles: how the condition of autism
may say something about the separation of poles and the distinct
nature of each**

The model I put forward, figure 4 above, retains the distinctiveness of metaphor and metonymy, at least in a polar and idealised form. However, it does allow that metonymy, like the spatial relationship upon which it is based, will rapidly acquire a figurative nature. As we relate phenomena to each other through a notion of space that is increasingly metaphorical, so will we draw away from our need to talk about one thing through another that is attached to it in a literal sense. The division between a literal, partonomic view of metonymy and a metaphorical one could also be

reinforced by some reflection upon another language-related form of disturbance, that of autism.

2.7.8.1 Contiguity and metonymic relationships: autism and metaphor: the nature of autism

Autism is a condition characterised by such behaviour as a failure to respond to other people, a poverty of vocabulary, a paucity of facial expression and ‘elaborate repetitive routines’ (e.g. Klein 1975 and Kanner 1943). Additionally, language acquisition among sufferers of autism is often characterised by a tendency towards echolalia, that is the repetition of chunks of discourse as it has been heard. Language is not analysed as able to be adapted to new contexts (Kanner 1943). The key feature of autism is now taken as an interpersonal failure or the inability to relate to people as people. This has been ascribed to a failure to acquire what Premack and Woodruff (1978), in an essay on animal intelligence, have called a theory of mind (Hobson 1993).

A theory of mind, involves, at root, the ability to understand one’s own or others’ mental states. A theory of mind is what allows one to predict the actions of another, as an inference of understanding one’s own mental states (Premack and Woodruff 1978: 515). For example, if we are hungry and food is before us, the reflexive response is to reach out and take it. A theory of mind entails the understanding and knowledge that we are hungry. Such a theory entails *the experience* of hunger as a concept we can name. It is the knowledge that this state of dissatisfaction can require several forms of

remedial action such as going to the refrigerator, going to the orchard or even planting corn. Hunger becomes a mental state presenting, perhaps, forms of planning, rather than a sensation to which one responds. A further, more sophisticated effect is the capacity to infer that another person in similar circumstances may also suffer this state. From such an inference one can predict that they may also opt for one of the remedies outlined, such as going to the refrigerator. The argument is that autistics are deficient in their ability to construct such a theory. Klein (1975) described how they let somebody in their presence feel as if they were a piece of 'furniture' (cited in Hobson 1993: 20).

We can see deficiencies in the ability to theorise mind in Kanner's (1943) example of an echolalic child who on receiving a gift will respond '*You say* "Thank you"' (Hobson 1993). In other words, the child repeats what they have been told because they have failed to fully construct themselves as a mind that can be embraced by the notion 'you' and which therefore does not need this form of self-reference. Significantly such pronominal confusions as this one between 'you' and 'I' are common in autistics (Hobson 1993), arguably because the pronouns' correct usage involves the construction of self and of others as individual minds embodying similar and different states.

2.7.8.2 Contiguity and metonymic relationships: autism and metaphor: autism and the problem of understanding metaphor

According to Baltaxe (1977) a 'pedantic literalness' has also been a fairly consistent feature in observations of autistic behaviour (Hobson 1993: 169). In short, the occurrence of metaphor would seem to be rare in autistics' speech. Happe (1995) discussed the problems that some autistics have with the interpretation of figurative utterances. An instruction to 'stick your coat over there' can result in a request for some glue (ibid).

Asperger's syndrome sufferers are higher functioning autistics. Asperger's syndrome children may often over-attach a given item of language to the situation in which it is presented. For example, a child who hears the word 'independent' used as the description of a peer who dives into the swimming pool before their friends will thereafter interpret the word as meaning 'diving first into a swimming pool' (Cumine et al. 1998).

I have already discussed how very young children will engage in a type of catachresis, stretching the meaning of a word until it represents other meanings for which they do not have words. I have suggested also that this process entails a process of abstraction. The abstraction occurs when the global perception of an object is disregarded and some of its features such as shape and location are used to describe another phenomenon. The sun is thus mapped onto the moon. Such metaphors as the 'sun moon' reveal a process that may be more important than they at first appear to indicate.

We should first return to our example of a child's failure to deduce the meaning of independent from a given context and consider how it is that a word such as 'independent' as a description of character, can mean more than jumping first into a swimming pool. The meaning can be generalised because it has been abstracted away from a specific instance. When we say that a polar bear is a bear, we are identifying this creature not according to the specific properties that make it what it is but according to other properties that can be more extensively generalised. For example we say that it is a polar bear perhaps because it has white fur and an ability to swim in cold water. We say that it is simply a bear because of properties that are common to other bears; the shape of its snout and the thickness of its fur, for example. Now any use of a word to embody events other than a specific act such as jumping into a pool at one time involves an act of category creation. What we are doing is extracting features from an event that can be generalised to other events, which when applied to an individual may predict what they will do when confronted by such an event. In short, our generalisation of a term in order to let it describe more than a given instance must be tantamount to an act of superordinate category creation. Metaphor, as we have already argued, can be seen as just such a form of category extension and class inclusion (Glucksberg and Keysar 1993; Glucksberg and McGlone 1999).

Autism is a syndrome and as such its manifestations vary. Dowker et al (1996) found and documented an Asperger's syndrome sufferer who was something of a poet and as such, a user of quite elaborate metaphor. However, subject to such exceptions, it would seem possible to say that autism is often characterised by a failure to deal with figurative language (Happe 1995; Hobson 1993).

As we have implied in our reference to prepositional meaning and the terms ‘ahead’ or ‘back’, a key tenet in contemporary cognitive linguistics is that abstract meaning is largely, if not wholly metaphorical in origin. A failure in metaphor may precipitate a failure in abstraction. It is therefore unsurprising that autism should also be implicated in a process where a child fails to deduce the abstract properties of a word from a specific exemplification of it, so that they can apply them to other instances of a similar nature. For example, this means understanding that ‘independent’ refers to other events than jumping into a swimming pool.

In sum, the capacity of a child to stretch the meaning of a word is closely bound up with their ability to extrapolate a meaning from one context to another similar one. This capacity for extrapolation is itself a form of category creation and extension. Metaphor would seem to be implicated in this form of category extension. The failure of many autistics to deal in this cognitive area, of which the clearest manifestation is linguistic creativity, highlights close relationship between our ability to shape and understand abstract language, to form superordinate categories and to extend them as metaphor to include what they do not ordinarily include.

2.7.8.3 Contiguity and metonymic relationships: autism and metaphor: the issue of sociability and theories in the construction of mind

Happe (1995) also searches for the relationship between the autistic’s common failure to process metaphor and some of the better-documented features of their condition

such as poor sociability and the related failure to construct a theory of mind. Part of her interest is directed towards the issue of sociability and she cites Gibbs (1994) because of his linkage between sociability and the use of metaphor.

Gerrig and Gibbs (1988) and Gibbs (1994) hypothesise that metaphors are often used to socially bond interlocutors because they assume the sharing of a common experiential ground. In this vein, Cohen (1993) suggested that a use of metaphor allowed interlocutors a greater social intimacy, in part because meanings are being created that are common to the interlocutors at a given instant. Thus, two speakers may describe 'Agnes' as being 'just like an elephant' in direct reference to her ability to remember. Yet, if they both share the knowledge that Agnes is also rather large, then they may be drawn together by their extension of a word towards a meaning to which they and not the rest of the world are party (Gibbs 1994: 135).

Somewhat differently, Drew and Holt (1998) have researched the social function of figurative expressions in paving the way for a change of topic in a conversation or in closing it altogether. According to Drew and Holt 'salient metaphoric idiom' allows an interlocutor to summarise an argument so far and even to provide it with a climax (cited in Cameron and Low 1999). It may also be that because such idioms often function as existential statements, that is, statements of about existing in the world, they serve to bond the speakers by establishing their shared ground and its difficulties in respect of a larger reality. Thus, when two people finish a conversation about a relative's ill-health with an expression such as 'ah well, it never rains but it pours,' they may, as it were, be constructing a conversational niche inside a larger framework of world events and thus be reinforcing the grounds of their intimacy.

Many autistics may be excluded from these social uses of language by their inability to use metaphor. Alternatively, the limited ability to socialise may preclude an understanding of figurative language as a method of fostering intimacy. However, there may also be a larger issue here: one that concerns the construction of mind. Our sense of self as a mind or succession of mental states to which we can refer must be a largely metaphorical one when it is developed beyond the barest pronominal reference. The understanding of emotional or more generally, mental states occurs largely through metaphor, as when we express anger as heat, happiness as an upward state or loss and desolation through cold (e.g. Lakoff and Johnson 1980; Lakoff 1987; Lakoff and Turner 1989; Lakoff and Johnson 1999). A defective ability to deal in metaphor must also amount to an inability to construct theories about one's own states of mind and thus to have a grasp upon the material from which one infers the existence of other minds.

Furthermore, the inference of another mind, must finally be by analogy to one's own. Therefore, our construction of other people as alike in the zone of feeling and empathy but different in the area of character must finally be as likeness in difference, or as metaphor in other words.

One further and quite interesting observation about metaphor, socialisation and category formation can also be made. I have stressed that a category's formation and its extension to include a given entity is most probably a primitive cognitive function that is essential to our survival. Predatory fish can recognise other fish as belonging to the category of poisons or non-food by dint of their dramatic colouring (Holyoak and

Thaggard 1995). The category of poison for some fish is built out of a quite basic similarity judgement (bright colours). I have also observed how metaphor creation is in some sense the extension of a category to include an item that was not thought to belong to it. Uncategorised phenomena must constitute something of threat. If we do not know whether a mushroom is poisonous or not, we would do well to assume that it is. Likewise, the inclusion of a phenomenon into a given category must constitute something of a relief, even if it means calling it a poison. Accordingly, I have speculated that metaphor as class inclusion may partly account for metaphor as able to provide satisfaction. For metaphor gives class identity to what is unidentified, and furnishes us with the relief of having found a superordinate home for the host of unknown feelings, sensations and phenomena that confront us.

Even more speculatively, it is interesting to consider how two of the most basic categories into which we will arrange our fellow creatures must be 'friend' and 'foe'. Deficiencies in category extension may interfere with our ability to interpret people as hostile or friendly. Metaphor could thus link to sociability in the very fundamental way of being linked to the mechanism by which we categorise people as threatening or non-threatening. An inability to make metaphor may be linked to an inability to extrapolate our notion of friendliness as an abstract idea from the gestures and facial expressions of care-givers, then to extend this to strangers as they present themselves. Finally, if we were without the capacity to form metaphor we could also be without the capacity to construct the notion of a friend, thus finding ourselves in a world where every social encounter is potentially threatening.

2.7.8.4 **Contiguity and metonymic relationships: autism and metaphor: autism and the metonymic pole**

Hitherto, I have discussed autism as being associated with deficiencies in the area of metaphor-making and the acts of mental construction and reconstruction with which it can be associated. Although autism should not be universally associated with an inability to make and understand metaphor, it has been my argument that such studies of this condition will, when further advanced, do much to hasten our understanding of the role and function of metaphor. However, a question I have not heard asked is also whether this condition may also tell us something about the nature of metonymy and how far it is distinct from metaphor.

In order to examine this question, it might be helpful to look at the following extracts from a monologue by a boy suffering from Asperger's syndrome. The child is discussing his experiences of the day on the public transport system, or observing the movement of trains:

80 and then west came in at three+forty+seven. And the r ware doors look light
yellow ..square doors with the part. The next one was gonna have round doors.
But it didn't. Square doors with light yellow inside an(d) going east came in. And
I saw the square doors with light yellow inside going west through the windows.
But the square doors with light yellow light inside they going east. And I let it go
by.

And then at three +fifty the round doors going west went in the other side and I

and the round doors going east came in. And I saw the round doors going west through the windows of the round doors going east. And I saw the round doors going west through the windows of the grey coach and the round doors going east. And then I got in the round doors going east. (De Villiers' data: De Villiers 1999).

This discourse manifests exactly the type of pedantic literalism that is generally held to constitute autistic speech. Phrases are repeated without regard for the patience of the listener: 'And I saw the round doors going west...and I saw the round doors going west'. The discourse shows a painstaking interest in certain details 'square doors, round doors' and, to the unsympathetic reader, an infuriating precision in the way the narrative is recounted.

However, the narrative detail is not there simply to embellish the account. The details are the metonymic hooks on which the larger narrative hangs. Trains are the actors of this narrative and are represented by such seemingly insignificant features as their direction, door shape and door colour. These features, one assumes, are the items through which the larger actors in the scene, the trains, present and identify themselves. These details have a contiguous relationship to the objects they represent. Contiguity, here, is meant in the most basic, literal and paronymic sense. A given train is its round doors not because they are like it but simply because they are part of it. The clarity of the spatial relationship also impedes the details' evocation of a greater impressionistic whole. The description is so cluttered that it is difficult to develop a holistic picture of what has occurred. The train is the detail through which it is perceived.

This ‘thing for concept’ usage places the discourse a long way from one of the roles that Gibbs (1994 and 1999) identifies for metonymy. This was in description, where a few details can be used to evoke a larger scene, as when ‘tables and chairs’ are used to summarise and evoke the wider set of man-made objects that constitute furniture. By way of contrast, it may be useful to consider another very different and more evocative description of a vehicle where a whole is evoked through just this metonymic interplay:

81 Through the gap between the front seats I could see the (gear) stick’s dusty canopy of weary black rubber. Above that was a dark hole where the heater or radio should have been. Some charm made of bark, animal skin and beads dangled from the mirror (Authors’ data: Giles Folden: *The Last King of Scotland* 1998: 25).

Just as 81 makes clear how metonymy can adopt the larger function of what Gibbs (1994) terms a Poetics of Mind so, 80, above, shows how it may not. 80, above, makes clear how metonymy can have a highly literal origin and function. When rooted in spatial attachment, the metonym, door, for example, is the train for which it stands to an extent that may inhibit a wider and more evocative perception of that parent object.

Finally, it is noteworthy that the generalisation of category involves our transcendence of detail, at least until we post-rationalise the category as part of a scientific taxonomy. Too strong a sense of detail can clutter our capacity to generalise out of an abstract evocation of the object under consideration. It becomes interference. In a

discourse such as that of 80, where a thing-for-concept metonymy predominates, the things obscure the concept they should evoke. In this way, an essential capacity to generalise about the thing is limited. We cannot attribute polar bears to the bear family while we still insist upon their whiteness and their arctic habitat.

Example 80, above, thus shows an extreme metonymic literalism. It also shows how metonymy when used in this sense is at an opposite end to metaphor. However, metonymy posits a relationship between one phenomenon and another in which our capacity to make metaphor can itself interfere. A metonymy is prototypically a spatial relationship between a topic and vehicle. However, the metaphorical quality of mind is manifest in the construction of space as conceptual or in the dissolution of normal category boundaries which allows for the larger evocation of a conceptual whole through one of its parts or through one its category members. In short we may need a concept of literal metonymy or synecdoche as laying the groundwork for our concept of metonymy. Thereafter, we may need to think of this relationship as figurative because it is one in which our capacity for metaphor interferes.

2.7.9 Contiguity and metonymic relationships: metaphor and metonymy: issues and conclusions

I undertook a discussion of metonymy because its nature might help us to construct a better understanding of what metaphor really is. The evident starting point was Jakobson's (1971) view that metaphor and metonymy are the opposite axes of

language. However, this view was found to be problematic because there are expressions where the dividing line between the two poles becomes unclear.

Metaphor and metonymy were therefore best seen as poles on a continuum. Using this analysis, I can conclude that:

- 1) traditional analyses of metonymy stress that it is a relationship based upon contiguity. However a literal view of metonymy cannot account for all phenomena that are generally considered to be metonyms. In order to account for such relationships as 'bullets' as belonging to the field of 'war' our notion of contiguity has to become conceptual. Conceptual contiguity (Radden and Kovesces 1999) is arguably constructed out of a metaphorical view of space or of a spatial relationship. Ironically, it is metaphor, as a cognitive process, which allows us to extend our view of what metonymy is.
- 2) The notion of an ICM (Idealised Cognitive Model) was introduced with the possibility that metonyms are constructed out of some part of the larger, culturally constructed cognitive model that we have of a word's meaning. The metonym could be formed from a part of the model, which a given culture makes salient. The metonym then becomes a kind of cognitive 'tab' through which we manipulate the larger model.
- 3) The reconstruction of metaphor as an opposite pole to metonymy brings us back to a more traditional distinction between metonymy and metaphor (e.g. Ullman 1962). Accordingly, metonymy can be seen as locking onto a pre-existing relationship between its domains and metaphor as creating or asserting a relationship between the same where none may have been

previously recognised. The extent to which the relationship is considered new or unrecognised may mark the extent of the drift away from a metonymic pole. It may also be marked by how far the spatial relationship between topic and vehicle shifts from the physical to the conceptual until finally it is stretched out of existence.

- 4) Some autistics are deficient in metaphor comprehension and metaphor creation (Happe 1995; Hobson 1993). This can be linked to two other areas in which autistics may also have problems:

- lexical extension and generalisation
- the construction of theories of mind and sociability.

The role of metaphor as a cognitive process in these areas was discussed.

Metaphor was thus shifted further from the linguistic to the cognitive domain.

- 5) The possibility of metaphor as a cognitive process having a key role in our ability to extend categories and incorporate the unknown was linked, hypothetically, to our ability to find friends among new acquaintances and category membership for new phenomena.
- 6) An extract of discourse from an Asperger's syndrome sufferer was used to show how a literal, partonymic use of metonymy will exist without metaphor and perhaps impede a more generalised understanding with its need for abstraction and category formation. This literal type of metonymy defined an opposite pole to metaphor and to the nature of the mind that metaphor requires.

- 7) We can represent a domain through an item that is conceptually contiguous. and functionally or culturally salient, wheels for car for example. This type of representation would appear to be a distinct cognitive function. It would seem to be available to those who may have difficulty with metaphor, though some quite detailed research is needed to establish this. The indication is that synecdoche as prototypical metonymy is very distinct from prototypical metaphor.
- 8) As the notion of contiguity becomes more figurative, I would also suspect that the resultant type of metonymy may be less used by those who are deficient in their ability to handle metaphor, though research would be needed to establish this. The reason for this may be that the relation between a part and a whole becomes metaphorical. In short metaphor, as a cognitive process, extends our ability to use, metonymy.
- 9) A metonymy whose construction is assisted by metaphor can have the role of a descriptive device discussed by Gibbs (1994), where larger scenes are evoked through a few appendages. This is because category boundaries are blurred and larger sets of ICMS evoked by the few into which there is conceptual leakage. Thus, we can evoke an entire English village through a church and a few houses, because 'church' and 'houses' are categories that can act as cognitive tabs of the more detailed collections of forms that actually make up the village.

The above analysis of metonymy may give us a clearer idea of what metaphor is *not* and where its boundaries lie. I have also shown the importance of metaphor by outlining the problems of finding meaning in a text produced by an autistic child where metaphor is notable for its total absence and where metonymy takes a disconcertingly literal form. I have said that metaphor can extend our sense of the contiguous relationship between things, but I have not said how metaphor can actually create a relationship between domains that sometimes appears apt and satisfying and sometimes does not.

For example, the highly metaphorical passage, 82, below, is spoken by Shakespeare's Othello and is generally held to be moving and affective. If we retain the meaning or at least its gist, but change the metaphors as in 83, the theme is altogether without force and might be considered parody:

82 Here is my journey's end, here is my butt,
 And very sea mark of my utmost sail.
 Do you go back dismay'd? 'tis a lost fear:
 Man but a rush against Othello's breast
 And he retires. Where should Othello go?
 (Shakespeare: Othello)

83 Here is my dinner's end. Here is my desert

And sweet marked end of appetite.
Would you get up and go? Don't be afraid,
But come towards my empty plate
For there you'll rest, since full men cannot eat.

There is also the deeper issue of how people understand metaphors at all. I can argue that metaphor is a form of class inclusion (Glucksberg and Keysar 1993; Glucksberg and McClone 1999) and this may situate metaphor within the vital cognitive function of category formation. Yet, such an argument does not suggest either the basis of category or, more remotely, the reason for metaphor and why one given instance of it will be found meaningful while another may be less so.

2.8.1 Image schematic views of metaphor and thought: schema as a means through which thought patterns language

As has been argued, similarity is a problematic basis for metaphor, even though it is clear that metaphors do provoke some sense of a similarity relationship within us. This will apply, whether or not metaphors are interpreted as class inclusion statements. Metaphors that map a concrete target domain onto an abstract source domain make this point most clearly. Some abstract ideas cannot be grasped other than through the metaphor. We should perhaps remind ourselves that this is not the same as saying that abstract ideas are brought into existence by metaphors. But even after such an insistence, we are still left with the problem that the abstract entity, like

a smell, for example, will only take a form capable of cognitive manipulation if it is within a borrowed identity. Thus, we only talk about smell as taste or sight.

A key notion in the cognitive construction of mind and by implication of language is that of the *schema*. Fundamentally, ‘a schema is a pairing of two patterns at unequal levels’. Thus, ‘the steps of a dance are the schema of a dance’ (Turner, 1998: 44). In one of the earlier formulations of a schema in psychological literature, Bartlett (1932) told Amerindian folk tales to students in London. He found that when they recounted the tales they would alter them to fit a patterning more typical of the European folk tradition. His conclusion was that our memories organise events according to culturally imbued patterns or schema. One cognitive argument in respect of metaphor, is fundamentally that metaphorical language is produced by and interpreted through a form of schematisation or patterning also (e.g. Gibbs 1994; Lakoff 1987; Lakoff and Johnson 1999; Johnson 1989, 1991, 1992, 1993). I will now explain what this means.

2.8.2 Image schematic views of metaphor and thought: conceptual metaphor

Interestingly, classical analyses of rhetoric grasped the existence of certain schematisations in the use of metaphor (Turner 1998). It is not difficult to see why this should be. If we consider, 82, above, from Othello, we can see that the metaphor is schematised around the idea of movement in space, ‘journey’s end,’ ‘butt (end), ‘go back’, ‘rush’, ‘retire’ and ‘go’. Movement is the predominant pattern and could be

called a schema. There are also two secondary schemas. They are secondary because they belong to the overall theme of movement but realise it in different ways.

The first secondary schema is nautical movement, 'sea mark' (lighthouse or other terrestrial navigation point), 'sail'. The second schema latches onto one that recurs constantly throughout the play because of the main character's past as a soldier. It is that of warfare as in 'rush against a breast' (rushing against a breastwork in a fortification but in this case attacking Othello's person).

In his well-known essay, published in 1979, Reddy (1993) made the larger point that such schematic groupings are shaped by another more general metaphor. Further, the suggestion is that it is that it is not just poetry but much everyday discourse that is structured by these metaphorical themes or root analogies, as Goatly (1997) calls them. Reddy's example was the now much cited 'communication is a conduit' metaphor. His argument is that our discourse about communication is largely structured in terms of a metaphor that perceives it as a channel or conduit. The use of the word 'channel' for radio or television makes this clear. Reddy (1993: 166) considers the following examples for when communication fails:

84 try to *get* your *thoughts across* better

85 None of Mary's feelings *come through to me* with any clarity

86 You still haven't *given me* any *idea* of what you mean

(Reddy 1993: 166)

I have already discussed how a preposition/adverb such as 'ahead' is constructed as a kind of dead metaphor. Reddy's contention was that such dead metaphor underlies much of the talk about the abstract notion of communication. The implication is that we see a message as an object requiring transfer by means of a channel which we have to open then maintain against the risk of obstruction. Further examples are given in 87 – 92, below:

- 87 You know very well that I *gave* you that idea
88 Marsha got those concepts from Rudolph
89 Your real feelings are finally getting through to me
90 Your concepts come across beautifully
91 The passage conveys a feeling of excitement
92 I can't seem to get these ideas into words
(Reddy 1993: 189-191)

Examples 87-92, above, show how the main metaphor is realised in subsidiary metaphors (Reddy 1993). These subsidiary metaphors are better considered as entailments (Lakoff and Johnson 1999). For example if a life, as in 82 above, is conceptualised as being in motion (here is my journey's end), an entailment must be that it is an object capable of movement. The entailment in 82 is contained in the metaphor of a ship, which is represented by the metonym of a 'sail'. Reddy's example, 89, above, shows the message as moving down the channel in fairly straightforward manner and thus exemplifies the basic schema. Messages have to get through the ether in order to be perceived. However, a conduit supposes something to travel down it. 91 shows the idea or message in a state of motion, as the object

travelling down the conduit. Similarly, if the transmission of a message requires that it be *rendered* into an object form that can be ‘conducted’ to somebody else then this entails a process of *rendition* as in 92, where ideas must be *got* ‘into words’.

Reddy (1993) did not suggest that communication can only be thought of in these terms. However, he did point out that it was very difficult to avoid the communication as a conduit metaphor when discussing this subject. There is thus an implication that the metaphor is conceptual. As has been said, this means that we cannot separate the way we think about communication from the metaphors in which we discuss it. The larger implication is that communication is an abstract idea that can only be grasped as an inference of something else (Lakoff and Johnson 1999). It requires a conceptual metaphor of the conduit if it is to be cognitively manipulated. The conduit is thus an image schema in that it is a topic that the mind makes available for the conceptualisation of such ideas as communication.

Lakoff and Johnson (1980), in a now well-known book, ‘The Metaphors we Live by’, greatly extended Reddy’s analysis to explore a larger set of conceptualisations built from metaphors. The book’s wider view is that our discourse about abstract topics is made possible by metaphor. An implication, which was explored somewhat differently by Schön (1963 and 1993) is that our perceptions of particular issues are fashioned by the nature of the metaphor through which they are grasped.

Thus, according to Lakoff and Johnson (1980), we discuss both business and argument in contemporary Anglo-American culture as if they were forms of warfare. For example, business people will ‘outmanoeuvre the competition’ in a take-over

‘battle’ then launch a ‘price war’. Similarly, in a given argument, we can describe ourselves as ‘taking the high ground’ and in order to ‘demolish an opposing case.’

When we discuss states of mind we will often think about them as directional movement. ‘Up’ is positive as in ‘on top of the world’ while ‘down’ is negative as in ‘down in dumps’ or ‘depressed (pushed down from a high to a low point)’. Even more importantly, time is space, and cannot be conceptualised other than spatially or as an object moving in a spatial dimension, as with ‘a long time’ or a ‘short way to go until six o’clock.’

It is important to understand that conceptual metaphors are not textual entities. They are constructs that are used to describe the thematic linkages in the language that we use to talk about generally abstract topics in text. The linguistic realisations that instantiate conceptual metaphors may often be considered part of the literal, non-figurative lexicon. For example, the metaphor that ‘down is negative’ might give us both the notions of ‘mental depression’ and ‘political suppression’ with their etymology of something or somebody being pushed or let fall into the ground and immobilised. Yet, because they have been conventionalised by the evolution of English over time, few would consider these terms as metaphorical even though they attest to a conceptual metaphor.

Conceptual metaphors are sub-linguistic. They are a search for the analogical principles that shape much language but which will also lie behind visual imagery. For example, the 18th/19th century painter, Francisco Goya, etched a man and woman engaged in a vain and elaborate courtship then parodied their machinations with a

sketch of two dogs eyeing each other wantonly at their feet (see appendix 1). When he did this, he latched onto a common conceptual metaphor that gives us a reduced view of ourselves by likening us to animals and more specifically dogs. This conceptual metaphor also has a common linguistic manifestation in such expressions as 'it's a dog's life' or 'the dog end' for a remnant or left-over.

Because of the analogical nature of conceptual metaphors, we cannot be certain if the manner in which we formulate one is correct or not. This is not simply an issue of wording. For example, if we consider sentences 93-97, below, it is clear that we can base them on conceptual metaphors that are common to all these examples, to a few, or only to one. We can thus treat them as generated by the same conceptual metaphors or by different ones.

- 93 We must construct a new theory
- 94 The theory is largely based upon an older one
- 95 The theory is founded upon insecure evidence
- 96 The theory that has arisen is somewhat weak
- 97 The theory is unsupported by the evidence

Thus, with the highest degree of generalisation, we can say that all of these employ the idea that 'up is positive' because theories are good when they stand up or rise. Slightly less generally, but still in respect of all these examples, we can talk about 'theories as physical structures' or 'ideas as buildings'. This may seem weak in a case such as 92, but that is because we have come to accept that 'support' has an abstract meaning. In origin however, it would have been conceptualised as a support for a

physical structure. However, 96 and 97, can also be given quite different conceptualisations in that 97 views ‘evidence as a support’ and 96 sees evidence as the ground in which the structure is founded. It is clear, however, that all of these statements latch onto our need to see intellectual argument and theory as the putting up of physical structures in vertical space, and how we formulate that concept is not of great importance.

Lakoff and Johnson’s overwhelming conclusion is that we conceptualise a given topic with common sets of schemata and these schemata affect the nature of what we think about. Rational argument cannot be altogether separated from the construction of structures against gravity in vertical space.

2.8.3 Image-schematic views of metaphor and thought: metaphor as created by a conceptual hierarchy

The problem of formulating a given conceptual metaphor can never entirely be resolved, since we are any way attempting to give linguistic form to a conceptualisation that underlies language. However, some aspect of the difficulty can be accommodated within the notion of a hierarchy of conceptual metaphors as producing a particular textual realisation (Lakoff and Johnson 1999 201-202). For example, in the conceptualisation of intellectual structure, we could see ‘up is positive’ as more fundamental than the idea of building upwards and the structures that result. Broadly, two types of hierarchy are identified, inheritance or event structure hierarchies and entailment hierarchies.

2.8.3.1 Image-schematic views of metaphor and thought: metaphor as created by a conceptual hierarchy: event-structure hierarchies

Event structure hierarchies exploit the cognitive science concept of inheritance in order to structure our conceptualisation of a given event. Lakoff and Johnson (1999: 201) give as their example how somebody who has never seen an electric car can have quite a strong notion of what it will consist of. They know that such a car will have four wheels, probably a steering wheel, a driver's seat and brakes etc. Equally, they will bring to the idea some notions of electricity, such as the need to store it in batteries or to generate it. In sum, they inherit features from other prototypes of cars and of electricity in order to construct a kind of vehicle they may never have seen.

A common conceptual metaphor is 'difficulties are impediments to movement'. From the notion of impediment we inherit the various ways in which this can take a physical form. For example there is the event of a physical blockage in a flow. Another type of impediment is the burden which when carried will slow us down. Yet another is a force that is acting against our purpose (a counterforce) (Lakoff and Johnson 1999: 201-202). Thus, we inherit from the conceptual metaphor a set of divergent but similar expressions for problems. These expressions use more restricted conceptualisations. For example, sentences 98, 99 and 100, all inherit the notion of impediments as burdens which is in its turn part of the inheritance of the more general notion of an impediment.

98 He staggered under the weight of too much knowledge

99 She was bowed down with responsibility

100 She was carrying the burden of his sorrow.

2.8.3.2 Image schematic views of metaphor and thought: metaphor as created by a conceptual hierarchy: entailment hierarchies

We have already discussed how metaphors in text can possess entailments. Thus, in George Orwell's animal farm, the metaphor of 'a farm is a pre-revolutionary society' entails that the farmer will be the bourgeois capitalist. This entailment is proportional. According to a Marxist vision, the relationship of the farmer to their farm is the same as that of the capital-owning class to that of society. Entailments can also form hierarchies within the conceptual metaphors that underlie such textual realisations (Lakoff and Johnson 1999). The hierarchies exploit the relational structure of each domain of a metaphor. Thus, if 'actions are self-propelled motions', we can entail that 'aids to action are aids to movement' (ibid). This relationship can be constructed logically. Thus, we can say that if actions are self-propelled movements, then things that we do to precipitate movement will also precipitate action. This entailment would manifest itself in the textual examples 101-103, below:

101 If the project gets stuck then you'll need to push it on a bit

102 We all need to pull together, to keep this on the road

103 Once we have created some momentum, the business will grow of its own
accord

All of these examples are associating action with forward movement and failure with a lack of momentum (ibid). In 103, the metaphors are mixed, which is a common event in discourse despite the strictures that traditional rhetoricians may place against it. Thus, created 'movement' leads to 'growth'. It is also worth observing that teachers perhaps traditionally advise against mixing metaphors in order to retain the integrity of a given conceptual theme and thus prevent the confusion of a reader having to chase down too many conceptual metaphors at the same time.

In 101 the action needed to create momentum is to 'push', in 102 it is to 'pull'. Both 101 and 102 exploit an entailment. The entailment is that what we do to precipitate movement, will also precipitate action. But it would be wrong to see a sentence such as 102 as wholly a product of that entailment. I will explain why in section 2.9.4 below.

Finally, a hierarchy implies different levels of reduction in how we analyse a metaphor. Thus, 'aids to actions are aids to movement' will operate as the conceptualisation of fewer textual realisations than the more general 'actions are self-propelled motions', since this last encompasses much of our notion of action. A hierarchy also implies that some conceptual metaphors operate at a different level of generality to others. One can, for example, suggest a final point of reduction and generalisation in seeing reification, or viewing an idea as a thing, as being at the core of all abstract language (e.g. Langacker 1990 and 1991).

2.8.3.3 Image-schematic views of metaphor and thought: metaphor as created by a conceptual hierarchy: cultural and universal effects

‘Pulling together’ in 102, above, may make sense because of the conceptual metaphors that it exploits. Yet, at a more specific level it also attests to a formulation that is cultural in nature. Britain’s historical and cultural development is interlaced with its achievements as a maritime power. Sea-going activities are particularly potent as a source of language development. The confinement of life on an old sailing ship was also conducive to the creation of a privileged form of discourse. A phrase such as ‘pulling together’ is probably made conceptually salient by the need for seamen to pull on ropes and cables. It could also be bound up with the activity of team rowing.

Thus, a given text metaphor will be built from a hierarchy of conceptualisations that may be entailed or inherited. These may also be made salient by schema that are closely rooted in the nature of a culture at a given time (Lakoff 1987, Gibbs 1994, Lakoff and Johnson 1999). This constitutes one of the most potent effects of a culture upon a language. Arguably, also, it becomes a mechanism in cultural formation. For example, the maritime inheritance is rapidly becoming extinct as a contemporary feature of British life. However, it is maintained, albeit unconsciously, as a myth that fashions how the British people think about the world by the set of mappings that pervade the language we use.

A common conceptualisation of time views the place where the speaker is found as located in the present, the future as spatially in front of them and the past as behind (Lakoff and Johnson 1999: 140). Unusually, the Ayamaran language of Northern Chile places the future behind the observer and the present in front (Nuñez et al.

1997) (cited in Lakoff and Johnson 1999). This reverses the more common conceptualisation of an individual going forward to the future. One might start to speculate how this may modify the western conception of the individual as marching, goal-directed, into the future. Thus, one might wonder if some ancient Ayamaran conception of an unknowable future can shape their language and so transmit a concept of the individual as unable to map out their future existence.

By the same token, Lakoff has discussed a variation of his 'up is power' as a metaphor of social organisation (1987: 274). To be 'above' another typifies an expression of power, hence the idea of a 'raised throne' or a 'high table' and the opposite expression of deference through bowing or kneeling. In India, however, 'society is conceived as a 'body' of which the different castes are parts, with the lowest being the feet and the highest the head. The conceptualisation that high is powerful and low is weak thus receives a more direct representation in the structure of the body. The body of course adds its own aspects to the conceptualisation, since clearly, the high cast is not simply a 'head' because 'heads' are high but doubtless because they are directive of the rest of a given anatomy, as we can see in the English derivative of a 'head teacher'.

Another example of cultural interference is to 'the body is a container' schema of Lakoff and Johnson (1980). This schema manifests itself in the English expression of anger which is expressed through the idea of internal pressure on the container, for example 'fit to burst' or 'an explosive temper'. In Chinese, 'the body is a container schema' (Lakoff and Johnson 1980), will realise itself in a different form. Anger, may

arise less from the bursting of the container than through the state of the organs identified by Chinese medical tradition as associated with that emotion (Yu 1998).

2.8.4 Image-schematic views of metaphor and thought: the invariance hypothesis

Another feature of entailment hierarchies is that they entail structures in lower order conceptual metaphors or in text metaphors. The predictability of these forms of entailment have constituted ‘the invariance principle’ (Lakoff 1993: 215-216). The invariance principle holds that: ‘metaphorical mappings preserve the cognitive topology (that is the image schematic structure) of the source domain, in a way consistent with the inherent structure of the target domain’ (ibid: 215).

For example, I have said that all languages speak of time as space. In English and most other languages, a speaker conceptualises future time as being in front of them. Since the spatial opposite of ‘in front of’ is ‘behind’ and because ‘time is space’, the invariance principle will ensure that the temporal opposite of the future, or past time, will be conceptualised as behind the speaker. We have also looked at an example (Núñez et al.1997) of a conceptualisation of time that can be summarised as ‘back to the future’. The invariance hypothesis would suggest therefore that we go forward to the past in Ayamaran.

The invariance principle sets out parallel argument structures between each domain of a conceptual metaphor. In this sense, a conceptual metaphor is not dissimilar to an

analogy as described by Gentner and Jeziorski (1993) and Holyoak and Thaggard (1995). Gentner and Jeziorski (1993: 452) in fact hold conceptual metaphors to be a form of analogy. This implies that they are proportional in nature.

If conceptual metaphors are analogies then it must be that the inferences drawn from a source domain are made applicable to the target domain by the invariance principle.

In other words a set of structural relations would appear to exist between these domains. For an example, I will revert to the 'time is space' metaphor. As said, in English the future is in front of the speaker. Therefore, as implied, the invariance principle will not allow the past to be to the left or right of the speaker. This is because 'behind' is the opposite of 'in front' and 'the past' is the opposite of 'the future'. We can now draw an inference. In this case it will be that 'we go forward into the future and back into the past.' Thus:

the past → the space behind

the future → the space in front

therefore we walk forward into the future and back into the past. It may be therefore that the invariance principle reinforces the analogical or proportional nature of conceptual metaphors.

2.8.5 Image-schematic views of metaphor and thought: conceptual metaphor and its construction of how we think about the world.

Metaphor then can be perceived as a vehicle through which culture constructs language, and conceptual metaphor as the vehicle through which abstract ideas are grasped and by which they are shaped. This realisation has triggered a series of studies upon how metaphors shape the way in which a given mode of enquiry will grasp the world.

For example, Bellezi (1992) looked at how the conceptualisation of the mind as an eye and the concomitant metaphor of 'sight as understanding' that structured the mnemonics of 'professional memorisers'. In most studied languages, we can say that the dominance of visual perception in the human sensory system leads us to conceptualise understanding as seeing.

Bringing us closer to our theme, Block has brought the issue closer to English language teaching by looking at the metaphors through which we grasp the teaching and learning task (1992) or in which we frame the issue of second language acquisition (1999). Low (1999) has asked whether we can be said to conceptualise the text as a person in metatextual commentaries that treat discourse as an organ capable of pronouncing upon itself, as in the phrase 'this paper thinks.'

The areas of sickness and medicine have triggered a great deal of related interest. Haraway (1989) looked at the rhetoric of war, defence and military technology that can be found in popular discourse on the immune system. Martin (1990) conducted a similar study of contemporary popular texts that found the dominant conceptualisation

of the body as a nation state. Interestingly, in this, popular medical discourse has not developed far beyond the more expert metaphors of the 19th century, which according to Barbera (1993) also conceptualised the body as a nation in conflict. Sontag (1991) explored how the sick are treated according to the way in which illness is conceptualised through metaphors of warfare. Lupton (1994) dealt with the representation of illness with metaphor as a more general study of how the disease and the body are treated in Western culture. Yu (1998) extended the search for conceptual metaphors of sickness and other abstract states into Chinese with the conclusion that some are specific to a given culture and language.

Economics, business and politics have also received significant treatment. Morgan (1997) has put forward a set of different conceptual metaphors through which managers can re-examine their company structure, in order to determine the type of system they operate. For example, company structures can be organic or mechanistic. More interesting is Morgan's argument that an understanding of the structure as a given metaphor can help to release a manager's thinking from the entailments that the metaphors impose. In a less diagnostic and more descriptive vein, Schaeffner (1996) examined the cross-cultural misunderstandings implicit in political metaphor. She took as an example the very different German and English construals of the house that the German Chancellor, Helmut Kohl, wanted the European Union to be.

2.8.6 Image-schematic views of metaphor and thought: conceptual metaphor as the means through which we understand metaphorical language

Conceptual metaphor can be seen as more than representing how we understand a particular topic. Arguably, it is the mechanism through which we understand and create figurative language and concomitantly through which we represent and understand abstract thought (e.g. Gibbs 1993 and 1994, Johnson 1989, 1991, 1992, 1993, Lakoff and Johnson; Lakoff 1987; Lakoff and Johnson 1999, Nayak and Gibbs 1990). Some quite simple experiments have been conducted to try to show how this is the case. For example, subjects can be sensitised to expressions that latch onto a given schema by being given the schema as part of the context in which they will hear the expressions. Under such conditions, subjects are significantly more likely to provide a figurative interpretation of an expression (Nayak and Gibbs 1990). Thus, ‘blowing one’s stack’ is more likely to yield a clear figurative meaning if it is put forward in the context of the schema, ‘anger is a heated fluid in a container’.

The first major conclusion is that conceptual metaphors are schematisations for other metaphors. They can be regarded as the patterns from which metaphors are produced. These schema should be regarded as active in the process of metaphor creation and interpretation even though they may be responsible for creating meanings that are regarded as part of our ordinary lexis (Lakoff and Johnson 1999). We can both exemplify and support this view if we look at language diachronically, or as it has developed over time.

2.8.7 Conceptual metaphor and the diachronic study of language

2.8.7.1 Conceptual metaphor and the diachronic study of language:

idiomatisation and lexicalisation

Let us imagine that two people are talking about their new manager and have the following conversation:

104 A: There're going to be some sweeping changes

 B: Yes, she's what you might call a new broom

 A: A new vacuum clearer more like

The first two expressions can be construed as conventionalised. The process of conventionalisation can be seen in two ways, as idiomatisation then lexicalisation. An idiomatic expression supposes a non-literal use of language which does not require great interpretative effort because it is conventional or common. Thus, when we hear the expression 'red herring', we will know that this refers to a move away from the main conversational topic. It means this because of the practice of using the strong smell of this fish to divert hounds from the pursuit of their quarry (Goatly 1997). Yet such a meaning cannot be worked out from the expression itself. We have to know that a 'red herring means a topic diversion' or else be given a very informative context, if we are to understand it. At the same time we retain the meaning of herring as fish and therefore perceive our use of the word to mean a diversionary topic as odd. Idioms operate upon this cline of having a meaning that is largely conventionalised yet understood as figurative. Sometimes the figurative meaning can be deduced from an understanding of metaphor and its origins can be traced to conceptual metaphor

(Gibbs and Nayak 1989 and 1991; Gibbs et al. 1989, Nayak and Gibbs 1990).

Sometimes it is opaque. However, underlying the opacity will be a metaphorical or metonymic story, perhaps evidencing the effect of cultural practices upon language, as in the hunting example.

As implied, an idiom's state of conventionalisation is made clear by how it is sometimes opaque. We cannot work out what a red herring means except possibly through context. In the example, 'sweeping changes', one could argue that this expression is certainly idiomatised. In fact, I would suggest that it is approaching lexicalisation because it is difficult to construct the use of 'sweeping' as an adjective in a way that would be considered literal. Even an odd expression such as a 'sweeping person' would more likely have the connotation of implementing changes than using a broom. However, the manner in which the second speaker develops the metaphor by describing the new manager as a 'new broom' shows how somebody may latch onto a conceptualisation that is active even though its textual product is dead and partially conventionalised. The final, unconventional metaphor, 'vacuum cleaner', makes clear how the schematisation is being grasped in order to create something odd, which also imports something of a different schematisation (the avaricious suction mechanism) to create humour. This is a constructed example, however it summarises a process that is constantly occurring in language. That process is the cognitive deployment of the still active schema that lie behind idioms or dead, lexicalised and partially lexicalised metaphors. I give another example where one speaker, referring to the donor of a large sum of money to a political party, takes up a schema suggested by a particular word then develops it:

105 'He was known as bullets at school and he's certainly handed the Tories a lot
of heavy-duty ammunition tonight' (Authors data: BBC television)

A contrived example that shows the exploitation of a schema where lexicalisation is complete is given at 106, below:

- 106 A: Because the train was late they had to hold up the one behind
B: Yes one thing leads to another
A: But sometimes people just can't get from the one idea to the other

Our ideas of causality are expressed through an image schema of spatial connection, or 'a path schema' (Lakoff 1987; Lakoff and Johnson 1999). This is made very clear in A's final comment about people not 'getting from one idea to another.' It is also apparent in the previous comment of B, using 'lead to'. Though the partial lexicalisation of 'lead to' as an expression of causation makes this less apparent. In the first statement of B, 'the path' schema would not be present at all, as cause is expressed through the conjunction 'because'. Now, 'cause' has an etymological link through Latin to the idea of a spatial connection. However, we do not need to link this word to its possible origins in a 'path schema' in order to understand it, nor could one argue that its appearance here has been triggered by an activation of this schema. We have already attributed a role to this word. What is clear is that the schemata from which the word has emerged are still active in our conceptualisation of causation, if not in our understanding of the word itself.

I will now consider another example by looking at a process that implies greater abstraction than lexicalisation, that of grammaticalisation.

2.8.7.2 Image schematic views of metaphor and thought: conceptual metaphor and the diachronic study of language: language change

Many students of language change, but perhaps most notably, Heine and Reh (1984) and Hopper and Traugött (1993), have pointed up a process of grammaticalisation and described the role of metaphor within it. I have already described how certain words become more grammatical as the language evolves over time. I took as an example how a preposition may begin as the metaphorical development of a noun body part, reflecting the orientation of the body to the world (Heine 1997). This can be found in such English examples as ‘ahead’ (derived from head) or behind (derived from hind). These may develop in the next phase into grammatical particles as can be seen in an English phrasal verb such as ‘go ahead’. The grammatical particles may develop into clitics and finally affixes, though this does not always happen. The process arguably involves a series of metaphorical extensions that cut across the boundaries traditionally separating lexis from morphology and grammar, questioning the usefulness of the traditional distinctions that linguistics makes between these areas of study.

An example of grammaticalisation can be seen in the history of the ‘future’ in Latin and French. The early Latin *kantabumos* (we sing) was an affixation of ‘bumos’ a form of the verb to ‘be’. By ‘process of phonological reduction’ this became

‘cantabimus’ (Fox 1994). One can speculate that this involves the construction of the future as a place where we want ourselves to be, drawing upon a schema that Lakoff and Johnson (1999) call ‘the state as location’ metaphor or what Heine (1993) refers to as ‘a change of state’.

However, other schemata are also active. The schemata that drive language change undermine the grammatical forms that they create. Despite the stabilisation of the first Latin future, a second Latin future evolved as ‘cantare habemus’ or literally ‘we have to sing,’ which is itself an association between *possession*, *obligation* and bringing future events into the present by taking hold of them. This association is perhaps from the conceptualisation that owning an action perhaps compels us to perform it, because in holding to we are compelled to perform it, rather as addictive substances also gain a ‘hold’ on our body and mind. This evolved into another suffix, presumably by elisions such as ‘cantar (hab) em(u)s’ that gave the future in French as ‘(nous) chanterons’ (Fox 1994).

However, the development of the future in *romance* still shows no sign of having ended. According to Lakoff and Johnson’s (1999) ‘a state as location’ schema, a state of being is conceptualised as a place in space towards which we can move.

Additionally, we should remind ourselves that ‘future time’ is considered as a spatial trajectory, most commonly positioned forward of the observer. We therefore see the future also as walking forward towards a state or action or as motion (Heine 1993). In English, this manifests as ‘I am going to sing’. In French, it is ‘nous allons chanter’. Interestingly, that future is now preferred in French to the grammaticalised ‘nous chanterons (Fox 1994).’ The cognitive argument would be that language is being

constantly driven in new grammatical directions by the manner in which a schema as fundamental as ‘future time is trajectory ahead of the observer’ will remodel linguistic expression according to its particular conceptualisation.

A more general implication, that I will take up later, is that language posits a state of conflict between two needs. One need is to conventionalise meaning and create symbolic representation where ‘x’ means ‘x’. The other is to categorise and tie down unknown phenomena and sensations by using metaphor to extend the stock of symbolic representations that we possess.

2.8.8 Image schematic views of metaphor and thought: primary metaphor and the construction of abstract meaning from bodily function and orientation

I have dealt with the idea of conceptual metaphors as identifiable as the relational themes that underlie metaphor in text. Next, I looked at the idea of a schema in its broad sense as the mental plans that underlie how we store and reproduce or act out knowledge. We can now treat these schematisations more broadly still, that is, not as patterns that emerge in the form of a metaphor, but as the conceptual resource from which such metaphors are formed (e.g Gibbs 1994; Lakoff and Johnson 1999).

For example, let us consider an expression ‘outcast’. This expression assumes that to be in a given a central position is good and to be ‘cast’ outside it is bad. An underlying conceptualisation is probably that the centre is good and the periphery (or

outside it) is bad. Let us consider another: ‘that idea is absolutely central, it is not marginal at all’. This works with a related conceptualisation that ‘being at the centre is important’ and ‘being at the periphery is unimportant’. Both of these expressions, the outcast and the central idea, describe quite different things and conditions. However, they both lock onto a common conceptualisation that can be summarised as ‘centre-periphery’. Clearly, we are moving to another level of generality. We are describing the fundamental schematic resources from which conceptual metaphors are built, and we can call these image schemas (Lakoff 1987; Johnson 1987) or image schemata if we use the traditional, Greek plural. Image schemata can be regarded as schematic representations of conceptual domains, especially those domains which serve as source-domains in metaphorical mappings (Lakoff 1987: 271; Johnson 1989, 1991, 1992, 1993).

The schemata put forward by Lakoff (1987: 271) include the following: container: part-whole, link, centre-periphery, path, linear order, up-down, and front-back. Johnson (1987: 126) found some others such as ‘balance compulsion, blockage, counterforce, diversion, restraint removal, enablement, attraction, mass-count, cycle, near-far, scale, merging, splitting, full-empty, matching, contact, superimposition, iteration, process, surface, object, and collection’. In fact, ‘the range of image schemas may not be fixed and may cover different levels of abstraction’ Boers (1996: 26). Of course, much depends on the level of generalisation to which one wants to reduce one’s analysis. As mentioned, Langacker (e.g. 1990 and 1994) takes a core principle of language as reification. By this one can assert that language evolves from the underlying metaphor that conceptualises an abstract idea as a thing, whether animate or inanimate. Another key conceptualisation is our need to personify abstract

phenomena or at least to see them as animate beings that are capable of acting under their own volition. This can be demonstrated through the copula verb. Invariably, and across many languages, the copula whether in English, French or Japanese may retain an existential meaning, that is 'being' or 'être'. Therefore the grammaticalised use where we say a 'book is here' may evolve from the schema 'death is absence and life is presence' which in turn entails personification. In short we attach the fundamental quality of our own being to the world around us.

2.8.9 Image schematic views of metaphor and thought: image schema, primary metaphor and the construction of abstract meaning from bodily function and orientation

As the highest point of generalisation or the highest superordinate category of metaphor, image schema also tell us something fundamental about how abstract meaning is conceptualised. In this they are not derived from representations or perceptions of the world, such as our visualisation of space, but more fundamentally from our sense of ourselves as embodied beings (Lakoff 1987: 271; Johnson 1989, 1991, 1992, 1993) as we exist in space, subject to gravity and responsive to temperature.

A key schematisation here is the container metaphor (Lakoff and Johnson 1980). Thus, we experience our bodies as containers and emotions as fluids or vapours as subject to temperature changes that pressure or relieve the body's containment, as

when we say ‘let off steam’ or ‘stop pressuring yourself’. Containment also enters into how we express our search for ideas or thoughts as being lost ‘within’ ourselves.

The argument is that such schemata are exploited by mappings that occur early in life. For example, an infant who stands for the first time, hauling themselves up on a coffee table or whatever, will experience a huge sense of satisfaction, perhaps displayed by a large smile. This event maps the physical experience of being ‘up’ onto the abstract one of being ‘happy or fulfilled’. Grady (1997) calls such mappings primary metaphors, and from them one can entail a whole series of more common conceptualisations. For example, Johnson (1987 and 1991) has stressed the importance of our sense of ‘balance’ to the expression of logical argument, as in ‘weigh the ideas’ or ‘a balanced equation’. This schematisation partly functions through our sense of ‘balance’ as positive which may derive from other earlier experience of the pleasure of standing unaided for the first time. It represents one of the core set of schema provided by early physical experiences which we later use to map abstract thought.

2.8.10 Image schematic views of metaphor and thought: difficulties with the idea of conceptual metaphors that are active in the interpretation of figurative language

As has been said, conceptual metaphors can be perceived as schematisations, often dating back to the earliest moments in infancy which are active in the interpretation and creation of living metaphor and abstract language in text. The view is that

conceptual metaphors furnish the schema to which we refer the occurrences of text metaphor in order to interpret them. Thus, if I say, ‘when he heard my news he exploded all over me’, we can perceive that as meaningful because we refer it back to our basic conceptualisation of our body as a container and our anger as the heated fluids within it (Lakoff 1987: 271; Johnson 1989, 1991, 1992, 1993). We will do this through the previously-mentioned perception that the text metaphor is an entailment of a conceptual one.

We should remember also that it has been argued that a perception of similarity cannot be at the core of metaphor interpretation since metaphors can work well when they map between domains that are fundamentally unlike each other. A key example of this is the conceptual metaphor, ‘love is a journey’ where we talk about love as having a destination or purposes and passing through its various stages but do not find any real grounds for treating one as like the other (Lakoff and Johnson 1999). Thus, when we hear a statement such as ‘you and I have got as far as we can go’ the argument is that we do not understand this by perceiving love as similar to a journey. We understand it by referring the metaphor back up a chain of entailments to the related mapping between the two domains that we have already schematised. This schematisation will perhaps relate back to a more fundamental mapping of purposes as destinations and to an image schema of action as movement.

There are several problems with this analysis, however. We know that similarity must be understood as an emergent feature of metaphor. We cannot say that we interpret metaphor through a sense of similarity. Nonetheless, we do know that a sense of similarity is an emergent property of metaphor. We know this because many similes

and metaphors have approximate meanings and some languages do not always distinguish how they express the two constructs.

Second, it has been argued that if we look at the scope of linguistic or artistic creativity and the extent to which it is meaningful, basing metaphor interpretation and creation solely on schematic entailments as opposed to similarity judgement would seem to be cognitively inefficient (Glucksberg and McGlone 1999). We would need to be engaged in active reference to perhaps thousands of schemata in order to interpret everyday language (*ibid*). The number required to interpret a complicated work of art could be difficult to quantify.

Third, the same metaphor can have very different meanings according to the context in which it occurs. If a metaphor triggered a given set of schemata in order for it to be interpreted then it could not change meanings with this kind of facility (Glucksberg and McGlone 1999). Glucksberg and McGlone (1999: 1556) offer an example used by Lakoff (1993), 'Heather is a time bomb'. Lakoff's argument is that we understand this through the container schema, where the body as a container keeps fluid under pressure. This relates back to our early physical experience of anger and the sense of heat it engenders. But if we consider the expression 'diabetes is a time bomb', the time bomb's status in respect of heat and pressure is irrelevant. What is important now is the time bomb's properties of an inevitable future catastrophe (Glucksberg and McGlone 1999: 1556). In short, different schemata are triggered according to the context in which a metaphor occurs. The only way we could find the right interpretation would be by finding the right relational similarity between the text metaphor and the schema appropriate to the interpretation that the context requires.

Fourth, the notion that there is no sense of similarity between the domains of conceptual metaphors may be over-dependent upon Glucksberg's and Keysar's (1993) earlier distinction between similarity and proportional metaphors. A problem with this distinction is that if we say that the domains of a conceptual metaphor share a relational structure rather than a visual similarity, we may actually be saying that sharing a relational structure is sharing a relational similarity. Similarity, in other words, is not necessarily a visual relationship.

The assertion that one can have relational similarities can also be made in respect of the invariance hypothesis. It should be remembered that the invariance hypothesis holds that if 'love is a journey' then going back to the beginning of a journey is then going back to the beginning of a relationship. The invariance hypothesis is making a statement about matching topographies between the domains of metaphors (Lakoff 1993). Yet perhaps this matching is essentially a feature-sharing relationship, which amounts to a similarity-based one.

It may be that the invariance hypothesis in fact argues not in favour of relational similarity but in favour of the isomorphic relationship that some scholars have argued as being a core principal of analogy (Holyoak and Thaggard 1995) and also of metaphor (Ricoeur 1975). In an isomorphic relationship, a given action in respect of one domain will produce a similar effect in respect of another domain. For example if heat increases by a given amount, the mercury in a thermometer will also rise by a given amount and an opposite event will produce the opposite effect (Holyoak and Thaggard 1995). There is nothing similar about temperature and mercury despite the

fact that the one is virtually conceptualised through the other. What is interesting, however, is that we will form metaphors of heat as mercury. We will talk about mercury as if its behaviour were quite similar to the property it must measure. In short, an isomorphic relationship may give us unwarranted grounds to treat as similar the phenomena it links together. Yet an isomorphic relationship may again be satisfying because it posits a relational similarity between the domains of two entities. Thus, mercury is like heat because an increase in one posits an expansion in the other. It is simply that our construction of 'heat' and 'mercury' must be larger in order to encompass this notion of a proportional similarity between them.

2.8.12 Image-schematic views of metaphor and thought: metaphor and category formation

I have asked whether our capacity to form metaphors does not relate to our capacity to extend existing category structures to admit into them unknown phenomena. Thus, if adults encounter a brightly coloured toadstool, they will probably put it in the category of poison without pausing to discover whether this is right or wrong. Similarly, as suggested, we operate with notions of friend and foe into which we will have to organise our encounters with the rest of humanity. If we are to make an equation between metaphor and our need to operate with a fluid sense of category then it is perhaps worth revisiting key research on how categories are formed.

Some of the most influential work on category formation is that of Rosch (e.g. 1975 and 1978) or Heider (1971 and 1972) as she was first known. Her early work was

with focal colours and the Dani children of New Guinea. This group were chosen because their language only names two colours and they were therefore less likely to be influenced by cultural preconceptions based on a broader spectrum of focal colours. Rosch's initial experiment was a simple one. Children were asked to pick out a counter from a set of which one was in a focal colour. A significant number would opt for the focal colour. An offshoot of this research was the development of a prototype theory where it was held that a given category would be conceptually anchored around a category member that was held to be prototypical of it, just as the colour spectrum was anchored around focal colours. Her famous example was that of birds for Americans, recounted above (see section 2.7). In an experiment her subjects were asked to rate different types of bird according to how good an example of that category they were considered to be.

A clear outcome of Rosch's work is that categories do not delineate a piece of conceptual territory in which phenomena are either inside or outside (Lakoff 1987, Ungerer and Schmid 1996). Birds can be central or peripheral in relation to the category they are assigned. In a previous discussion, I considered how the idea of class membership worked with a notion of spatial conclusion, as can be understood from the metaphorical construction of a term such as 'include'. However, this may falsify the idea of a category with the expectations that things are either outside or inside it.

A second point is that we anchor categories through pre-established reference points, or some idea of prototypicality. The form that these reference points take will vary considerably according to what is being categorised. Some objects will be categorised

more according to function than form. Others may be matched according to properties (Ungerer and Schmid 1996, Edwards 1997). If category formation is achieved through some perception of similarity, whether in the relation of function or form, this will furnish us with a broad enough concept of similarity to cope with metaphor.

Two additional points can be carried through in respect of our analysis of metaphor.

The first is the possibility of an association between metaphor creation and comprehension and category or class inclusion (Glucksberg and Keysar 1993). We can impose category boundaries upon the new and the strange because those boundaries are flexible. That flexibility is carried to an extreme when we declare that Juliet belongs to the class of bright and light-emitting objects or 'suns'. We are finding a place where Juliet or Juliet's qualities can belong.

Second, flexible boundaries suppose an appreciation of a new category exemplar as somehow sharing features with another category member; the movement of electricity as liquid, in a 'current', for example. Such feature-sharing cannot but be construed as the result of a search for similarity.

In sum, metaphor-making involves an assumption of fluid category boundaries as well as a sense of similarity. It is therefore tempting to see metaphor making as an extreme act of category creation, or at least an exploitation of faculties that are involved in the same.

2.9 Finding a concept of metaphor: conclusions.

It should be remembered, that the object of this discussion is to carry forward a notion of metaphor that may inform language teaching, or even locate it with cognitive processes that are central to meaning-creation. In order to do this, the following points can now be made:

- 1) Metaphor should be treated as a cognitive process. Active text metaphor is not the interest of this thesis except as the manifestation of a more significant cognitive process. The process underlies the evolution of language and linguistic inventiveness. It can be linked to the generalisation of language from a specific context to another similar one because it entails our establishment of a similarity between a new context and the one in which language was first presented or used. It entails the understanding of a new context as a metaphor of a familiar one.
- 2) Metaphor as a cognitive process builds abstract meaning, both in lexis and grammar. Abstract expression, such as that of logical argument, may deploy limited sets of schemata, the idea of a path or spatial linkage, for example. The linkage between grammatical and lexical meaning will affect both linguistic and pedagogical approaches to both these domains.
- 3) Surface text metaphors can therefore often be grouped and organised by schemata. Image schemata account for how meaning is organised in a language and form a resource from which meaning is built. These will often be rooted in the facts of

embodiment, in existence or in an embodied existence in a concrete world. Such perceptions will have cultural variation allowing for an effect of culture upon the construction of language and language upon the construction of culture.

- 4) It seems more difficult to sustain Lakoff and Johnson's (e.g. 1999) argument that a metaphorical or abstract meaning is continually being referred back to one or several of a multitude of schemata in order for it to be interpreted. Further, the existence of a similarity relationship between the domains of a metaphor cannot be discounted and our need to form category judgements would imply that we are well equipped to find such a relationship. However, since the evidence for image schemata is cross-linguistic and overwhelming, it would seem that such schemata must at least act as a reference points to generate new metaphor and assist in their interpretation. Yet, the view that several conceptual metaphors are responsible to different degrees for a given textual example posits sets of overlapping conceptualisations and a fluidity that can only be accounted for by an analogical interpretation.
- 5) Point 4, above, also raises the question of whether we should not extend our notion of similarity to include proportional similarity. The possibility could then be that proportional similarity could then be the mapping of a relationship evolved from a sense of the visual likeness of the things that have been mapped onto an abstract domain.
- 6) Category structures underscore conceptual fluidity. They incorporate one concept (for example trees) into another subordinate one (for example plants). Category

incorporation occurs because something is seen in terms of fewer key features as when the distinguishing feature of a tree such as a trunk is disregarded for it to be seen more generally as a 'growing thing' or plant. Metaphors also employ this conceptual fluidity to absorb one thing into another. As Tverski (1977) has implied, the achievement of a similarity relationship is finally this ability to treat matching features as salient and those that do not match as subsidiary.

- 7) If similarity is an attribute both of class formation and metaphor then it would seem to be productive to relate these two attributes particularly in respect of our ability to extend a given category in order to absorb something new.

An outstanding problem lies in the contradictory nature of these conclusions. On the one hand, we have the notion that abstract ideas are conceptualised through concrete experience and exist as an entailment of the same. On the other hand, we are suggesting that the resultant metaphors are structured as a result of a similarity relationship. The problem now is that we cannot say that 'love' is like a 'journey', because, as an abstraction, 'love' will not have taken a prior form which is well enough delineated to be compared to anything. It takes form within a 'journey'. This is a consequence of the 'mapping' for the form 'journey' to the concept 'love'.

But the emergent question is why such mappings will occur. 'Love' and a 'journey' are both abstract categories, though both become manifest in physical sensations and events. If I say, 'love is warmth', 'the need for love is hunger' or 'happiness is being up' then these metaphors show a clearer existence as a reflexive conceptual coincidence of an emotion and physical sensation. However, even here love pre-exists

the mapping, albeit as a raw physical need for milk or warmth or whatever. The co-occurrence of sensations will trigger our search for similarities between them, and these similarities may bind the mapping that occurs. Equally when 'love' takes on the attributes of love or some other infantile association, it is the fact of its co-occurrence with those sensations that allows us to register a sense of similarity between it and them. I can hypothesise that 'love' has a primitive conceptual structure even before it is elaborated by metaphor. However, the elaboration in basic metaphor endows it with the more elaborate conceptual structure that allows a more mature cognition to enhance it further as a staged and goal-driven phenomenon, equivalent to our conceptualisation of life itself, or as a journey, in other words.

Logical relationships may show this more clearly. If we have to conceptualise 'cause and effect' as a spatial relationship, as a path, or a movement down a path this does not negate the existence of a cause and effect relationship prior to its conceptualisation. This relationship is part of daily experience, not just as a sequence that we initiate when we judge an action as having consequences. Even if the cause and effect relationship is formulated as an 'inference' of the spatial metaphor (Lakoff and Johnson 1999), it must have made some impact upon our perceptual apparatus and be stored there awaiting further elaboration. Cause and effect can be observed in the impact of objects upon each other and is extrapolated from the phenomenon through which it is made manifest.

If we take another example 'time', it is evident that we are products of our spatial existence to the extent that we cannot conceive of time as itself but must see it as a measurement of space or an entity with spatial existence. Yet, we form tense, albeit

by playing loose and fast with the facts of our embodied, spatial existence. And tense sets up a temporal reference that does not need spatial metaphor in order to be understood. If I say 'I did it' that is meaningful before it sets up an analytic reference to a time line or some other spatial instrument.

By the same token, I have discussed how our expression of cause has been built as a spatial relationship, as a connection or 'path' in space (Lakoff and Johnson 1999). Yet I would argue that cause is inherently meaningful without reference to the spatial metaphor in which its linguistic expression is rooted. This is not to say that scholars such as Lakoff and Johnson (1999) and Gibbs (1994) are putting forward a post-modernist agenda where logic or any other abstract thought is being constructed inside the metaphor. Lakoff and Johnson argue that the abstract idea is found as an inference of a metaphor but that it is there, in some sense, to be found (1999). The argument then shifts to a discussion of the nature of this prior-existence and the extent to which it can be said to have a structure, which can possess a similarity relationship to the metaphor through which it is expressed. Obviously this is variable but my supposition is that abstract concepts, as mental constructs, do not simply embed themselves in a metaphor as a consequence of some random coincidence. For example, this type of coincidence occurs when an infant brings themselves upright for the first time feels a sense of achievement and therefore constructs 'positive as up'. My supposition is that the infant already has a category of experience, 'happiness', which can find some form of relational similarity with the concept, 'upwardness' that is strong enough to schematise the association of the two experiences.

Three further points can be made:

- 1) a mental structure, such as a logical relationship, may exist not as an inference of metaphors formed by physical experience but as the pre-requisite for them. They have a need for the self-representation to which cognition responds.
- 2) there are emotions, sensations, ideas, some sense of logic perhaps, which though lacking conceptual form must pre-exist in some shape as the target domain onto which the source domain is mapped.
- 3) from the above two points it would follow that a raw concept can have sufficient identity to be held to be similar to something else if this process is unconscious or somehow prior to our obtaining full awareness of the idea in question.

I now wish to carry forward this picture of metaphorical processes in order to examine how we should re-assess the teaching of the language that they have fashioned.

3 Reconstructing the theory of language teaching: teaching language as a figurative construct

3.1 Summary of the issues

It should now be clear that the study of metaphor, analogy and metonymy is far more than an examination of the surface linguistic phenomena that are associated with colourful, poetic or literary language. Metaphor reveals a great deal about how the mind:

- conceptualises the meanings expressed in language
- copes with the new and the strange
- acquires and uses new knowledge

Metaphor cannot have serious consideration without reference to the broader areas of cognitive linguistics and cognitive science. The interest of cognitive linguists is not in language as an isolated or separate phenomenon that must be studied for the structures of systems that we can find in it. The interest is in how language reveals the wider mental processes out of which it has been formed and on which it is formed. Such a concern shifts our treatment of language as something isolated and unique towards one which understands its nature as bound up with how we learn and think.

Turning to language teaching, it should be remembered that recent approaches have been constructed out of the following areas of study:

- classical grammar
- structuralism and behaviourism
- (systemic) functional linguistics
- theories of second language acquisition

These areas have not produced pedagogical theories that can be called singular or consistent. Communicative methodology, for example, divides into what Howatt (1984) calls the weak and the strong approaches. The weak supposes an interest in how we use grammar and lexical phrases to realise a given communicative function such as telling a story. The strong supposes a more over-riding concern with helping students to express meaning at the expense of accuracy. It suggests a meaning-focused approach where students are distracted from thinking about language per se by their need to use it in problem-solving tasks, or 'procedures' as Prabhu (1987) called them. In this case, 'the invented example', whose objective is to put forward a given function, notion or structure, was replaced by 'bits of language lifted from their original context' or 'student generated' text (Cook 2000: 189).

Language acquisition is, if anything, an even more divergent area of study. At one extreme, SLA theory is based upon Krashen's (1985) clear distinction between two processes:

- conscious learning, resulting in a monitored and hesitant use of language
- unconscious acquisition where learners rediscover the faculties that helped them to acquire their first language.

At the other end of the SLA spectrum, scholars such as Ellis (1990) and Pieneman (1998) have shown a considerable interest in what are called cognitive strategies, that is in the learning processes that students employ in order to understand and reuse language. For them, a complete dichotomy between the natural and unconscious process of acquisition and the conscious and artificial procedures of learning would be false.

Yet what I wish to stress here is the lack of a clear relationship between communicative language teaching theory and acquisition theory. On the one hand, the emphasis of communicative theory is upon the social use of language. The early interest was in whether the language taught had been analysed according to how it was used and whether the context in which language was learnt related to that of its future use. On the other hand, we can say that the primary conclusion to be drawn

from Krashen's (1985 and 1989) theory of acquisition is that the conscious analysis of language according to any criteria is not useful for language students. What is needed is a 'natural approach' (Krashen and Terrell 1983) where a class is really a process of exposure to the comprehensible second language input upon which the students' faculties will work without being prompted.

Therefore, if we were to simplify current language teaching approaches we could find them divided between:

- 1) A descriptive theory that regards language as a social construct and hence treats language learning as a process of socialisation in the language, that is of simply using it to perform tasks that require social and hence linguistic interaction. Such tasks have been divided into the personal type, focusing on the individual thoughts and ideas, or their interactions with a given culture, and the decision-making type, involving an assessment of political, business or other dilemmas (Skehan and Foster 1997).
- 2) A psycholinguistic theory that treats language description as either irrelevant to effective acquisition or even obstructive of it and which therefore encourages the student to ignore the nature of the phenomenon with which they have to grapple.

The era of behaviourism, however, proposed a more unified picture. Language learning for Skinner (1957) was a process of habit formation. A linguistic habit consisted of knowing what words meant and knowing how they slotted into the grammatical patterns or structures of which language was composed. We obtained habits in respect of the structures of language through a process of constant reinforcement. In the language class, this reinforcement took the form of pattern drilling and there was no attention to meaning beyond the word.

It is now recognised that behaviourist theories of language were only able to unite learning theory and language description by over-simplifying or even falsifying the nature of both the learning process and the nature of language. Yet the rejection of the behaviourist view has left teachers with a fractured theoretical base. On the one hand, they have to draw upon an increasingly elaborate understanding of the social use of

language. On the other hand, they must accommodate a view of the natural processes that learners' can employ (e.g Krashen 1981, 1982 and 1985, 1989, Krashen and Terrell 1985) as these are sometimes argued through the different frame of generative grammar (Cook 1992, Schwarz 1987, Schwarz and Sprouse 1992).

The emerging discipline of cognitive linguistics and the study of metaphor is not about describing language. The interest is in the conceptual processes that build language. Also, as Deacon (1997) has stressed, languages can be treated as products of an evolutionary pressure, or of a Darwinian need for cognitive fitness if they are to survive. In other words, in order to continue and develop, languages must be passed down and learnt. The construction of language must therefore be tuned to the nature of the mind that has to learn it. Therefore, it might be that keys to the nature of the language acquisition may rest with the cognitive hooks that are embedded in a language in order to make it more learnable. Metaphor, in the very broad sense in which I have defined it, may constitute one of those hooks. Metaphor is a linguistic clue to how the mind structures meaning. Metaphor is also associated with our capacity to generalise our learning and to make a creative response to new circumstances. Metaphor thus could stand as a link between the nature of language and the nature of the learning process.

I therefore want to ask the following theoretical questions:

- Can an image-schematic understanding of language be communicated to teachers and students as a vehicle that will help them understand the nature of what they have to deal with?
- Can this descriptive approach to what is to be learnt (i.e. language) be linked to how it is to be learnt?

In order to answer these questions, I will look briefly at the nature of the learning that an awareness of metaphor will engender. This will demand a consideration of:

1. Metaphor as another addition to competence or as an extension of what must be learnt.

2. What our understanding of metaphor could tell students about language.
3. How giving students an understanding of the metaphorical construction of language is in conflict with some SLA theory because it involves fostering greater conscious awareness of the nature of language.
4. Why such SLA theory should be treated as incorrect from a cognitive standpoint.
5. The type of learning framework our cognitive approach can offer students.

I will now consider each of these topics in turn.

3.2 Metaphor as an addition to what has to be learnt: a tack-on approach to metaphor and language teaching: the question of a metaphoric competence.

Perhaps the simplest way for teachers to treat our growing knowledge about metaphor and language is as an extension to their understanding of what has to be put across. If the use of metaphor is essential to the complete and creative use of a language, then such a use must be framed as a type of knowledge and taught. One way to frame such knowledge is as another of the competences that are often thought to be responsible for the production and comprehension of a given linguistic utterance.

Chomsky (1965) framed competence as a linguistic concept. By linguistic, one should understand syntactic and phonological, with the stress being put on the former. A competence was thus held to consist of the rules that produced or deciphered a language. To take a simple example, an English language competence would insist that we parse a noun preceding a verb as a subject.

Hymes (1971) extended Chomsky's notion of competence with the famous criticism that a person would be thought mad if their linguistic competence consisted only of the rules that generated grammatical strings of language. A speaker also required rules that would make language appropriate to a particular situation if they were not to say things that were entirely out of order. A speaker therefore required a communicative competence.

The notion of a communicative competence made the basic idea of competence into the subject of a kind of intellectual free-for-all. Other types of knowledge essential to language use were tacked onto the basic concept of a linguistic competence. For example 'strategic competence', according to Bachman and Palmer (1996), serves as a mediator between 'background knowledge' of a topic, language, and the external context in which it is to be used (cited in Douglas 2000). A metaphorical competence is one such extension. Metaphor appears to require its own competence because, although subject to hidden rules of appropriacy, it is disruptive of the more stable rules that form a linguistic competence. A metaphorical competence posits another

type of knowledge that language learners need to have. Low (1988) attempted a characterisation of the form that this extension to the learning task should take. He broke down a 'metaphoric competence' into such elements as 'the ability to construct plausible meanings,' 'to differentiate between new metaphors, conventional metaphors and idiosyncratic extensions of old ones'. He further saw it as incorporating an awareness of how to avoid the coinage of absurd metaphors and an understanding of the 'hedges' which signal whether a statement is to be interpreted metaphorically or not. Finally, he argued for the inclusion of the social sensitivity of certain metaphors such as the gender-biased extension of 'man' to represent humanity (Low: 1988: 130-132).

However, there are problems with the basic conceptualisation of this argument. The chief difficulty lies in the term 'competence.' Broadly, three arguments present themselves:

- 1) A linguistic competence is a Chomskyan notion that was devised in order to frame the features of language that could be scientifically described.
Extensions to the notion of competence are disruptive of this attempt to frame the predictable elements of language.
- 2) A competence supposes a store-house of the fixed sign-meaning correspondences that are essential to the efficient processing of language.
Metaphor is often threatening such correspondences, albeit in a principled way.
- 3) The threat of metaphor to competence is not according to linguistic 'rules' but in accordance with schemata or mental patterns that lie outside language and which evolve from the more basic sense of ourselves as embodied creatures interacting with the world.

I will elaborate on each of these points in turn.

3.2.1 A tack on approach to metaphor and language teaching: the concept of a linguistic competence cannot be extended to cope with a type of knowledge that is not strictly linguistic

A linguistic competence originally embodied the aspects of language that were susceptible to scientific enquiry (Chomsky 1965). This supposes that to describe a competence is to present the rules out of which language is generated as elements that are not open to the distortion and re-interpretation that surrounds issues of meaning. A competence represents the rules governing the generation of sentences as a logical and internally consistent system. Such a system attempts to assign functions to words independently of their meaning. As Searle (1980) has expressed it, the endeavour seeks to describe the syntax of a language as different piles of stones. When conceived of in this way, syntax exists prior to every verbal act and is the mechanism that makes that act possible. Such a competence is also self-contained. It supposes the generation of sentences through rules. But most importantly, these rules of generative grammar are not rationalised out of the wider issues of constructing meanings that are consistent with a given speech situation or the operations of cognition upon it.

A cognitive view of language is not motivated by a search for the rules of language, as they are distinct from other facets of mind. It is motivated by an interest in the structures of language as these arise from other features of perception. Both the lexical and grammatical basis of language is perceived as evolving from how the mind processes its existence as a facet of an embodied existence in a physical environment (e.g. Gibbs 1994, Johnson 1987, Langacker 1994). For example, if we build prepositional meaning from body parts as when 'head' yields 'ahead', we are extending our idea of language outside the search for the rules that tell us when to use such an item towards an interest in the principles from which these rules have evolved. Such a search is not consistent with the notion of a competence as a set of rules or a computational system that is not subject to external interference.

3.2.2 A tack on approach to metaphor and language teaching: how metaphor subverts the nature of competence.

A clear and traditional need in formal linguistics is to allow a notion of competence that contains a set of stable relationships between signs and what they signify. In other words, to know a language is to possess a set of individual words and their meanings. Thus we understand that the string of sounds or phonemes that are the word 'bachelor' will signify an unmarried man. However, in metaphor we find a process that can disrupt the stability of these sound-meaning correspondences and carry them off in another direction.

Human systems often achieve an original effect by disrupting normal symmetries and correspondences. These effects are dependent upon some normal set of circumstances and are made meaningful by them. Metaphor is one of the mechanisms through which such disruption is often achieved. Thus, a metaphor is made possible by the sign-meaning correspondences that it subverts. To take a very simple example: calling a person a 'bear' in English is meaningful because we possess an animal signification of that word that we superimpose upon the human referent. Our competence informs us that the word's referent 'a person' is not that sign's normal signification which is a furry animal. We then construct a meaning out of the tension between the word's normal signification and its abnormal referent, though the precise nature of that construction is difficult and controversial. In this way writers and readers of text are able to 'weaken the constraints of probability' and 'see possibilities' of meaning that 'might otherwise have escaped them' (Cook 2000).

Once a word is thus unhitched from its normal signification it acquires an extended meaning potential, to use Halliday's (1985) term. This potential is difficult to limit or tie down. One cannot predict how the features of a given socio-cultural context will constrain these meanings within a frame that its users judge plausible. Metaphor is in part about the creation of that frame perhaps in interaction with a speech situation and the wider socio-cultural environment from which it arises. If, as in French, the bear (ours) has been partially lexicalised around a meaning towards which it was once metaphorically extended, (brusque or clumsy in manner), then we are back in a zone of a normal understanding of meanings, or of a more straightforward lexical

competence. However, the lexicalisation of a term as a feature of that competence does not protect it from further extension to other referents by the metaphor making process. In sum, metaphor should be perceived as external to the idea of competence because it is a process that is disruptive of the normative correspondences and systems on which such a notion as competence would depend.

3.2.3 A tack on approach to metaphor and language teaching: the principles of metaphor formation lie outside language

My discussion in the last chapter showed how metaphor is a linguistic or visual phenomenon representing a cognitive process. That process exploits:

- 1) our sense of similarity
- 2) schemata that are built out of our experience of ourselves as embodied beings in interaction with the world

In respect of our sense of similarity, it should be clear that our sense of one thing being similar to another is not peculiar to a given language. The sense may be steered by cultural conditioning, but it will also flout such conventionalised expectations by finding grounds of likeness where there appeared to be none. The sense itself may be principled in that it satisfies an innate predisposition to search out the features that will give things a taxonomic home, making knowable what is unknown. However, this does not suppose a search for similarities according to the prescribed rules of a language. As we have argued, a metaphor can amount to an assertion of a similarity relationship that the reader will be asked to consider and even construct. Thus to say that ‘eternity’ is a ‘spider’ will ask that we interpret the idea of time without end through our idealised cognitive model of spiders. That model may be subject to cultural variation. In South America or Australia, for example, spiders are more threatening than in Europe, though even here, an atavistic or folk model can make them into creatures to be feared. Yet a common model is subject to further variations. Some individuals are arachnophobic and some are not. Correspondingly, this does not suggest rules of similarity that can be framed as a competence, identified and taught. In short, the collective folk model only goes so far in constructing this

meaning. Metaphors invite individual interpretations that cannot be predicted by a competence.

Conceptual metaphors exist as schemata or mental patterns that may facilitate the interpretation and production of metaphors as they occur in text. Thus our schematisation of 'time' as 'space' will facilitate our production and interpretation of such a statement as 'we have a long way to go before the end of the film'. It may be that such schemata have a role in fashioning our sense of the appropriacy of a metaphor (e.g. Gibbs 1994). For example, we will find statement 107 immediately meaningful while 108 is hard work at the least and could be simply dismissed as strange:

107 The theory needs a securer foundation

108 The theory's been dug too deep, it's sides need shoring up.

Sentence 107 latches onto a common conceptualisation of ideas as buildings or physical structures. We are not used to thinking of theories as mining the soil beneath us. Because of this we have to expend quite a lot of processing effort to get any meaning from 108 at all. It would thus be tempting to incorporate 'ideas are buildings' as a facet of our metaphoric competence in English.

However, an image schema is not a facet of the rules governing the language that we produce but a feature of how we conceptualise and interpret the meanings that language will utilise. It is a principle of meaning extension whose destination cannot always be predicted. For example, if I develop a conceptual metaphor, 'ideas are buildings', I could obtain the following:

109 'ideas are buildings' →

110 'philosophy is a work of construction' →

111 'philosophers are the navvies of the academic world' →

112 'like the gangs of navvies of old, philosophers disrupt the cultural landscape they descend upon.'

113 'ideas build philosophers'

It is clear that although sentence 112 is still exploiting the schema of 109 it has taken in an entirely unpredictable direction. There is no rule that can predict 112 as an outcome of 109 with 110 and 111 as intermediary phases. A competence, because it sets up a notion of rule governed behaviour, would set out to make 112 the predictable outcome of 109. By this token, the notion of one metaphor as an entailment of a schematised conceptual metaphor can be treated only as a process of reasoning back. The entailed metaphor is not contained within the schema that has influenced its emergence in the sense that, for generative grammarians, a given syntactic structure is contained in the unmarked form of which it is a transformation. However, it would make 112 more immediately meaningful than 113, which inverts the proportional relationship between the topic and vehicle. A competence determines how we can and cannot say something in a language. Metaphor concerns what we may or may not talk about. We need to distinguish between the rule governed and hence predictable behaviour implied by a competence and the patterned or principled behaviour implied by one form's derivation from a given conceptualisation.

It is clear, then, that we should not see our knowledge of metaphor as identifying new features of language that the student has to learn. The use of metaphor cannot simply be posited as the control of an aspect of language suggesting its own tacked-on competence. We should start to consider metaphor as a feature which helps to explain how language has come to take the form that it has. Metaphor posits a principle not only of how we conceptualise meaning in language but of how we make language serve our expressive needs. It both explains the nature of what is given and suggests how we adapt to what is new and strange when such adaptations are part of the wider theory of learning. Metaphor thus supposes a connection between the nature of language and the nature of learning thus re-opening the prospect of a theory that can forge a securer link between what the student has to learn and the nature of the process through which they will learn about it. My objective now is to elaborate upon the nature of that link.

3.3 Relating the construction of meaning in language to the construction of meaning in the minds of language learners: how cognitive perceptions of metaphor can impact upon the language learning task.

In this section, I will set out some of the ways in which metaphor can relate the nature of what has to be learnt, or language, to the nature of the learning task, language learning in other words. The principles are as follows:

- 1) Metaphor tells us about how meaning has been constructed in language over-time. The pedagogical device that explains strange language or linguistic forms, is metaphor, the cognitive concept that describes how that language came to be.
- 2) Metaphor is a means through which we explain to ourselves what is strange and unknown. Correspondingly, the role of metaphor in clarifying what is strange and inexplicable is intuited by many teachers who use its explanatory power.
- 3) Metaphor represents cognitive processes that are implicated not just in the construction of language but in its acquisition. Metaphor must be situated in the learning process.

Boers (2000) describes an experiment where conceptual metaphors are used as a device to help students group lexis according to the conceptual metaphors by which it has been fashioned. His results showed that students who used conceptual metaphors in this way had a significantly better recall of the lexis than those who did not.

Lindstromberg (1991) made an earlier plea for teachers of English for Specific Purposes to pay greater heed to the metaphors around which some specialised discourse may be structured. Dudley Evans (1998) also suggested that conceptual metaphor could become an instrument that would help us understand the specificity of a given form of discourse. It might pay to examine the suggestions of Lindstromberg and Boers together. Teachers could, for example, help business students understand that the language of business is structured around warfare. This will not only give such students a greater insight into the specific nature of the discourse with which they have to deal but will also provide them with a better recall of the same.

The above example encapsulates the principle that I would now like to examine. Our conceptualisation of business as warfare will mean that business and warfare sometimes share the same forms of expression. The shared structure is not some similarity judgement, which is fossilised in language. As Lakoff and Johnson (1999) are keen to stress, such schemata remain active in how we conceptualise the world. Therefore, bringing students into a schema that builds language provides them with both a mechanism of meaning formation and a mnemonic that works because it is central to the nature of what is being learnt. This synergy between understanding how a meaning is conceptualised in language and the type of processes required to learn the resulting realisations in the lexico-grammar are central to the thesis I am trying to put forward. When the relationship is understood, we can then shift teaching away from supplying a social or communicative context that will stimulate the student's production of a correct form and towards the cognition out of which those forms have been built.

3.3.1 Relating the construction of meaning in language to the construction of meaning in the minds of language learners: metaphor explains language by telling us how its meanings have been constructed over-time

The first area that teachers should consider is how figuration is a process that manifests itself within the texture of a language. As discussed, some of the schematic structures of speech figures, such as the event structure metaphor (time is space) may be common to how humans everywhere organise cognition. They are accessible and universal principles underlying the representation of meaning in language. The derived principle for teachers is that their exploitation of such schemata may make the construction of meaning in language appear more systematic and less strange.

Yet, it would be quite wrong to suggest that all schemata are common across languages. Even common schemata can produce quite different conceptual metaphors. For example, 'time is space' may commonly give rise to the conceptualisation of the future as in front and the past behind, but in Aymaran, in Northern Chile, the future is behind and the past before (Núñez et al 1997).

A further assertion is that such entailments can often reveal a cultural effect that is peculiar to the language or language group in which they are situated, though the precise nature of this may be obscure. For example, many Indo-European languages consider an accomplished action to be possessed by the person accomplishing it, as is evident from the formation of a present perfect with the verb of possession (have or, in Portuguese, 'hold'). Obviously, the common schema can be ascribed to the fact that these languages have influenced each other and grown from the same root. However, we cannot tell students why the schema was selected in the first place. What we can do is show how an understanding of this concept of possession can position students at one of the centres of meaning construction in English, thus helping them to understand how this tense is used.

An understanding of metaphor, therefore, will create a clearer understanding of the differences between languages and of the common attributes of cognition out of which the languages are structured. It will also foster an understanding of the different requirements of a particular context within a language. A given schematic entailment can apply not just to a given language or culture but to its subcultures as well. For example, the linguistic realisation of the schema could be even more specialised and be largely confined to a discourse that treats of a certain type of subject matter and addresses a particular form of relationship between a speaker and listener or writer and reader. In other words, a register may carry conceptual metaphors in a particular direction and students need to understand how this happens. For example: 'bug' in the sense of error in a computer programme probably evolves from 'to bug' as in to irritate which in its turn has developed from an image schema based upon the irritation caused by certain insects and perhaps more remotely from some primal fear of the same. Our uneasy relationship with the insect world then furnished a lexical item that next belonged to the register of computer software engineers. This has moved into French, and maybe other languages as well.

Metaphorical extension develops language away from the bedrock of common responses to the experience in which its meanings may first take root. It insists that meanings lie hidden in the gathered layers of obscure socio-cultural contexts or

vanished speech situations. Thus analogical thought may sometimes cover its tracks. It opens paths that cannot be retraced or reasoned back to the same base point according to the application of a universally acknowledged set of principles. Such a point is made clearly by the opaque English idiom, ‘a red herring’ which was discussed earlier (see 2.8.13.1). In this case, one could speculate that a ‘path’ schema (Lakoff 1987) is allowing us to conceive of a conversation as following a particular direction or course. The path ‘schema’ may explain the intuition that in most languages a word to be translated as ‘direction’ will have both a physical and an abstract sense. Thus, the phrase ‘a conversational change of direction’ will be comprehensible to those who first encountered the word in the context of moving from ‘left to right’. However, the path schema does nothing to predict a manifestation such as a ‘red herring’. The idiom evolved from the use of fish to throw hunting dogs off a scent (Goatly 1997), implying an unpredictable cultural individuation or historical coincidence of thought and event. It is further a derivation of which most native speakers are unaware. While one cannot equip students with the type of analytical skills that will trace back the schematic roots of an idiom such as ‘a red herring’, teachers might also consider whether they should give more thought to using a target language to teach students about its origins and its nature. Further, the metaphor of the hunt and the foul scent of rotten fish may well become a mnemonic to fix the idiom more securely. This proposal forms another clear example of how we can anchor language in the cognition from which it has been developed while paying less heed to an ephemeral and artificially induced context of use.

A language is littered with such lost similarity judgements. It stands as a record of past cultural practice. Knowledge of the schemata from which a given expression has evolved will not help learners to acquire a reflexive command of that expression. Arguably, it may actually underscore linguistic differences by showing how common conceptualisations surface in very different meaning structures.

Linguistic forms may relate to some conceptualisations that are common across languages and others that are not. Therefore, by putting metaphor onto the pedagogical agenda, I am not suggesting it as a way to deduce the universal principles of meaning construction. I am suggesting, however, that it does make a second language less strange by making its meanings appear more principled. To come upon

a foreign language as a synchronic construct is like being stranded in the world with a consciousness that is simply reactive and devoid of all powers of explanation or analysis. The provision of lexico-grammatical principles or rules of thumb may go some way towards helping students rationalise a language's strangeness. However, such a framework may categorise the nature of topology but will not explain how it has come to be. An awareness of metaphor can provide such an explanation. Understanding the conceptual core of a language will also help us to lead students closer to that centre. It will put them at play inside the network of schematisations from which the meanings of language have been formed.

In thus starting to place students within the conceptualisations out of which a language is produced they may themselves become more adept producers of its forms. For example, if we extend students' schematic awareness, we will not simply say that the present continuous is formed out of the copula and the verb+ing. We might say that this is using what Lakoff and Johnson (1999) call the 'state as location' metaphor where the copula is an indication of the occupancy of an action as if it were a location. We could push further and discuss the copula itself and its near-universal evolution from an existential form where 'to be is to live'. 'Presence' in a place or in an action is conceived through existence in it and by implication, 'absence' is perceived as non-existence. When suggested as rule-of-thumb explanations of the copula, these may sound complex, but I will show how they can be simplified as aspects of the situations through which language is taught. In short, I will examine how one can make the context of linguistic practice into an externalisation or meta-metaphor of the metaphor by which the structure was first built (see section 4.7).

Teachers often neglect how their task is partly to help students towards a more successful manipulation of these 'poetics' (Gibbs 1994) of language. Cook (2000: 192) has pointed out how CLT has ignored what Jakobson (1960) called the poetic function of language. This poetic function can stimulate a back-flow from 'forms' to the 'meanings' and 'relationships' between them that the forms represent (ibid: 193). Such a stimulation can in its turn free the student from the constraints of a formalistic notion of correctness and allow them to be carried towards an exploration of the concepts from which the language has emerged. In 'running riot' amidst a language's

conceptual core, students may also happen upon its principled and stable nature or the rules that guide such 'play'.

Teachers also forget how the metaphor-based principles of meaning may be the product of a greater systematicity than was once imagined. An understanding of that systematicity could help students greatly. Without that understanding, students come upon what they perceive to be a language's 'idiom' as a baffling series of randomly shaped constructions, each of which has to be memorised as an individual entity. With greater awareness of both the schemata underlying all language and those underlying a particular language, students can participate in the creative process out of which are generated the expressions that they perceive as aberrant or idiomatic. They can thus establish a framework that can impose sense and order where there appeared to be none.

3.4 Metaphor is a means through which we explain to ourselves what is strange and unknown.

Teachers have traditionally and intuitively used metaphor and analogy in order to explain obscure phenomena to students. It is a common feature of classroom discourse (Cameron 1997). Sometimes these instructional metaphors evolve from those through which the subject is conceptualised. Science teachers may revert to the liquid and flow metaphor through which electricity is conceptualised, describing it through a water analogy, sometimes to the detriment of their students' fuller understanding (Gentner and Jeziorski 1993).

Gorden (1966), Williams (1983) and Nolder (1984) have all advocated making teachers more aware of how to use metaphor in science and mathematics teaching in order to aid understanding. Such understandings are linked to the wider conceptual role of metaphor. Williams (1983) for example, raises the issue of the lateralisation of mind and the association of metaphor with the right brain or creative side of learner engagement that is now a key feature of such training approaches as neuro-linguistic programming. Nolder's (1984) focus was largely upon the explanatory power of metaphor when it is used in direct instructional language.

In considering the explanatory power of metaphor, we should first understand the difference between metaphor and analogy on the one hand and exemplification on the other. Thus, teachers of basic numeracy are not constructing metaphors of number when they illustrate addition by bringing together one group of blocks out of two. Nonetheless, the distinction is fine, particularly when one considers that the piling up of blocks may in its turn become the vehicle through which addition is conceptualised. Thus, when a teacher wants to exemplify a process, the example they use may become the metaphor through which the process is conceptualised in their students' minds. I should further make clear that this thesis holds that the fineness of this distinction testifies to the linkage between the power of metaphor as a pedagogical device and its existence as a mechanism of conceptualisation. The use of explanatory metaphor or analogy in the classroom is successful because teachers and students share a mind which conceptualises abstract meaning through metaphor. The teacher who says electricity is water is not simply elucidating the hidden nature of

electricity, they are orienting students towards the schema out of which our wider notion of electricity has been built. The power of such a procedure is made plain by Gentner and Jeziorski's (1993) study which showed how the metaphors through which people are taught a subject, 'water' versus 'a moving crowd' for 'electricity', for example, can exert a negative influence on their ability to grasp its wider nature. Similarly, Cortazzi and Jin (1999) have examined how 'the elicitation' of the metaphors through which teacher trainees and language students conceptualise the nature of teaching, learning and their role within these processes can have a 'direct effect' on the promotion of 'awareness' (1999: 155).

Language teachers also employ metaphor almost intuitively in order to clarify a given linguistic point. In this case also, there may be a fine line between the process of explanation, conceptualisation and exemplification. For example, a popular method of illustrating the quite complicated past tense structure of English is with a time-line of the type shown in figure 5:

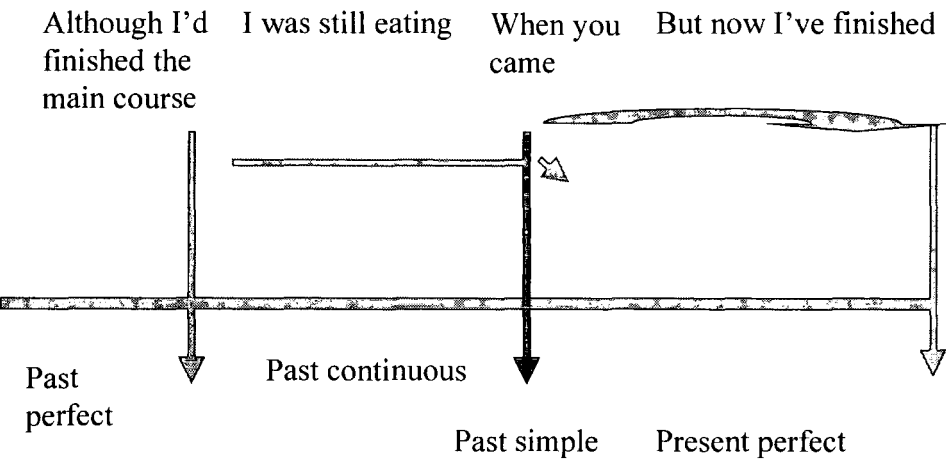


Figure 5

Such a metaphor can be used in a direct instructional phase of a language lesson. It is a method for a teacher to explain differences in when grammatical structures are being used. The time-line operates through our most basic conceptualisation of time,

that is ‘time is space’, but it does not itself latch onto the types of conceptualisation from which the tenses themselves may have evolved. This time-line metaphor also contains exemplification. This is given by the contrived sentence at the top (Although I’d finished my main course, I was still eating when you came but I’ve finished now), which is mapped onto the spatial metaphor in order to show how each of these illustrated structures is used.

The time-line gives us clear insight into the use of metaphor to clarify issues in direct language instruction. I would now like to elaborate upon why such forms are a powerful vehicle of classroom discourse and clarify the different ways in which they are used as well as the reasons for using them. Broadly, I will describe the explanatory force of metaphor according to the following categories:

- 1) How metaphors can make it possible to talk about a given point (Nolder 1984)
- 2) How metaphors can relate new concepts to old (Nolder 1984)
- 3) How metaphors compel attention
- 4) How metaphors can be used to restructure how we think about things and thus used for critical thought
- 5) How the affective nature of metaphor can make content more memorable and help students’ fluency and powers of self-expression.

I will now look at each of these in turn.

3.4.1 Metaphor is a means through which we explain to ourselves what is strange and unknown: metaphors make it possible to talk about a given point

Our first point is that metaphors help learning because they may make it possible to talk about a point ‘x’ at all (Nolder 1984). This is clear in mathematics, which is by definition extra-linguistic. Such a point may seem less evident when reapplied to a subject that *is* linguistic. However, abstraction is part of any attempt to offer students explicit knowledge about their TL. The benefits of this explicit knowledge constitutes another issue and will be discussed below in relation to acquisition (see section 3.3.3).

For now, the point holds that to separate and generalise the rules of use of a language is to shift a class further into an abstract realm. Abstraction entails metaphorisation. Therefore, grappling with the abstract principles of language entails a shift towards metaphor. This can be made clear at the most primary level; in the way we actually talk about what a language is.

Our discussion about linguistic competence implied that language does not take analysable form unless it is vested in something *as* something. For example Competence recreates language as a structure of mind, amounting to the metaphorical presupposition that 'language is a structure of mind'. Deacon (1997) discusses it as a parasitic organism. SFL (systemic functional linguistics) focuses on an individual language as a systematic representation of social meanings. In short, any systematic consideration of metaphor involves our construction of it as something else. Now this does raise the point of how far 'language is a structure of mind' constitutes a metaphor or a proposed intellectual framework and an objectivist elaboration upon the nature of what is to be studied. Yet one of the major planks of Lakoff's (1987) and Lakoff and Johnson's (1999) thesis is that our notions of objectivism are suspect because it is difficult to separate metaphors from descriptive frameworks. Furthermore, the latter are represented as having been set up by the former. This is implied by Chomsky's (1985) own rhetoric concerning I and E language, where the ethereal nature of the external 'E' form is contrasted with the stable and hence analysable existence of the 'I'. In short, in order to form the basis of sound theory, language must first not simply be described as possessing certain features, it must be vested in something or conceptualised through it. This conceptual need for the authority of the concrete is developed when Chomsky borrows a cosmological metaphor and describes how after acquisition, I language resembles an unchanging universe and comes to exist in 'steady state'. At a more applied level, one can also see how metalanguage, as the language in which a language is described, will be metaphorical in nature, since the term implies the doomed enterprise of language rendering itself into terms other than its own.

Metaphor, therefore, is a pre-requisite for linguistic discussion, both in the language and the linguistics class. The corollary to that is how explanations about language use will take form in the individual metaphors that are appropriate to them. I have already

presented the classic example of the time-line. A rule of thumb that might appear to employ a more literal description may be making use of implicit metaphors. For example, teachers say the indefinite article is to be used with non-count nouns. Yet in order to conceptualise this, students must first set up a category of language called nouns such as person, place or thing, which may not actually correspond to what nouns are. They must envisage an uncountable noun when everything that can be indicated can be counted, and what may really be at stake is a cultural sense of what can be indicated and what cannot.

A teacher's understanding of the metaphorical basis of language can also encourage useful extensions to the way they explain something. For example, teachers may explain the use of the past simple in English with the type of time-line given above. Equally, a situational methodology would focus on setting a series of past events in some example that emphasised their separateness from the present. A typical instance would be a convict recounting their life in prison. The prison walls suggest themselves as a metaphor of temporal separation where actions inside are over and retained in the past and those outside are connected to the present. One can make this procedure more forceful by fusing the situation and the metalinguistic explanation into a metaphor of temporal separation where we do not talk of imprisoned people, but imprisoned time and correspondingly the imprisoned verbs through which past actions represent themselves (see section 4.7.1).

Using metaphors of time to teach tense can also be extended into actual classroom activities. Imaginary time-lines can be drawn across the classroom floor, with students using the appropriate tense as they move along these invisible paths. Zones can be set up to encompass students' past, future and present life with different sets of actions allocated to each. Teachers, attempting to subordinate teaching to learning according to Gattegno's (1971) prescription will be familiar with using cuisinnaire rods to represent the spatial relations that we use to conceptualise time. They may, for example, use the spaces between rods to indicate different sequences in time, then connect them to elicit how the present perfect brings the past into the present, or erect barriers between them to show how the opposite case calls for the past simple. Even more commonly, gesture can be used to indicate grammatical structure, as when teachers point forward or behind to indicate a future or past tense.

In sum, metaphor enters the discourse of all successful language instruction and may then extend that discourse into the forms of exemplification that characterise the creative language class. Metaphor passes from what is said, to what is drawn, then on towards the actions and gesture of students.

3.4.2 Metaphor is a means through which we explain to ourselves what is strange and unknown: metaphors relate new concepts to old

When examining conceptual metaphor, we explored the notion of a metaphorical entailment. At its simplest, this could be how understanding that the future is in front of us will give the entailment that the past is behind. It will entail this because just as the future is the *opposite of* the past so ‘in front’ is the *opposite of* ‘behind’. The metaphors of instructional discourse, whether it is gestural or spoken, set up networks of understanding through which ideas can be related to each other. Thus, the spatial representation of the past can be extended towards the representation of the future. In this way, a time-line (see figure 5 above) can be put on the classroom wall as a diagram that is added to from lesson to lesson. It could begin with the division of the present, move to the past simple and perhaps end with the past perfect, as the time before time.

The metaphor of spatial representation can be used in other ways as well. It can be used to deal with the English division of the present between what is limited and unlimited. The limited notion of the present continuous, for example, becomes a field of action in which the protagonist is seen as being placed, trapped even, or delimited by the continuation of what they have begun (see section 4.7).

Thus single explanatory metaphors can set up networks built around a common conceptualisation relating different areas of knowledge to each other and putting them within the learner’s grasp as distinct facets of a single system.

3.4.3 Metaphor is a means through which we explain to ourselves what is strange and unknown: metaphors compel attention: the classroom as a trading floor of images

Cortazzi and Jin (1999) show how metaphors can function as bridges to learning in that changes in the metaphors through which something is conceptualised amount to new understanding. As they also perceive, if change is to be affected, a teacher will try to draw students towards their own conceptual system. At the edge of knowledge, we will collectively and intuitively use metaphor to conceptualise phenomena that are previously unknown or dimly understood, exchanging and elaborating upon the forms that result. The individual student, of whatever age, is in this position when they confront and try to possess new knowledge. Possession of knowledge, to some extent entails either an understanding of the metaphors in which it is presented or its reconstruction within the conceptual system that the student brings to class. Classrooms are in this sense a trading-floor of images. Sometimes that reconstruction supposes that what is assumed to have been sold has been rendered into an unrecognisable form once it has changed hands. This can cause misunderstandings or mean that students learn the wrong thing.

However, it should not be assumed that the passage of an idea out of one metaphor into another as it passes from student to teacher will, of necessity, entail its corruption. The conceptual system of a learner consists of the mappings that are conducted from the universals of the human condition, those that are constructed out of cultural difference, and those which are incapable of generalisation because they are a product of individual experience. This last can take the form of original metaphor. Yet individualisation may also be the weighting given to certain common conceptualisations. For example, metaphors of liquidity are common to the conceptualisation of instability and movement. Thus knowledge which is not grasped ‘flows over us’ while cash which is easily exchangeable and mobile forms a ‘liquid asset’. However, it would be interesting to test if those who have a stronger childhood contacts with rivers or the sea did not make liquidity into a more central part of their conceptual system than those who did not. The metaphorical aspect of learner training may therefore involve more than the creation of conceptual bridges from teacher to learner and learner to teacher. It may also involve the learners’ understanding of their

own conceptual weightings so that they can vest knowledge in the metaphors that are powerful to them.

As Cortazzi and Jin (1999) imply, student and trainee metaphors of learning and teaching are not simply vehicles that require adjustment in order to bring about a corresponding reconceptualisation of knowledge. Such metaphors can also be vehicles through which trainers adjust to the circumstances in which their trainees work, as well as to the nature of the esteem in which they hold themselves. Holme (1998) has suggested how the technique of participatory appraisal (PA) (e.g. Mukherjee 1995) that is commonly used for needs assessment in rural development and localised literacy projects can also have an interesting impact in the ESP classroom. A key idea in PA is to treat the community in question as owners of the information on which any intervention will be based. PA therefore draws together a series of techniques that help a given community expose the nature of their circumstances to themselves. In 2000, with a colleague, Julie King and I extended this technique into the area of teacher training and baseline study for curriculum change and added to it the notion of metaphor as a means through which trainees might expose the nature of their circumstances. We asked seminar participants to produce metaphors of teaching and learning that corresponded to the situation in which they worked. The seminar was delivered in an area with a parlous political situation that was close to a zone of civil war. The school system had to support a swollen refugee population with a declining resource. Such circumstances produced images of the disparity between the traditional respect for education and the teachers' declining sense of self-esteem (education is lost time, teachers are intelligent fools, classes are crowds as against: teachers are the country's builders). Metaphor, here, is again a vehicle for discussion and a means through which students/trainees can explain their situation and thus ensure that any ensuing intervention is appropriate and properly targeted. Metaphor formation becomes another mechanism of participatory appraisal. It focuses participant attention on the nature of their own needs and orientates an intervention towards them.

We could state therefore that metaphors compel attention because:

- they come as a shared or ready-built bridge to knowledge

- they are vehicles of conceptual change and can thus give the bridge between teacher and learner another form
- they let students vest knowledge in the vehicles that are powerful to them and help them visualise their own circumstances or explain these to others.

Further, the metaphor should not simply be perceived as a flare that briefly illuminates a scene. The metaphor can itself be the vehicle through which the scene is expressed, drawing attention to itself as a key component of a discourse.

3.4.4 Metaphor is a means through which we explain to ourselves what is strange and unknown: how metaphors can be used to restructure how we think about things and thus used for critical thought

Metaphor nails down new meanings but as it does so it will disrupt other sign-meaning correspondences. The very mechanism that achieves semantic precision is born of semantic vagueness. There is rupture in the relationship between a concept and a form as when for example, a ship is no longer represented by the vessel moored in the nearby harbour. The concept may then trawl for dimly perceived ideas such as the sense of our life as adrift and ships are no just longer the objects moored nearby. The vagueness of metaphor can also be used as part of conscious strategy that proffers the impression of a precise answer that is actually very vague. The metaphors that allow us to discuss a topic without ever quite stating what is at issue can also permit an ambiguity that shields us from the consequences of what we say. Thus, for example, political discourse may abound with examples of how metaphor can be used consciously to obfuscate by shielding a politician from the need to give direct answers to questions (Good 1995 personal communication).

Yet the political function of metaphor, is not simply to obfuscate. It can become part of a conscious or unconscious attempt to mislead. The rhetoric of the Gulf War has been extensively analysed for how it uses metaphor in order to propagate the message that its perpetrators wanted heard (Lakoff 1999). We might take a more recent example, the constant repetition of the term ‘degrade’ as in ‘degrade the

Serbian military infrastructure' in the recent Kosova campaign. This word gives the impression that NATO's bombing campaign, whatever its rights or wrongs, has blended each separate and jagged act of destruction into a smoother less inflammatory process that hastens the natural attrition of a greater wrong. By such rhetoric, the more traditional assumption that military objectives are territorial has been wished away.

Proponents of critical literacy approaches (e.g. Stierer and Maybin 1994 and Morgan 1997) and the critical discourse analysis on which it depends (e.g. Fairclough 1989 and Hodge and Kress 1993), will be attuned to these euphemistic devices. Any elaboration of these views would require discussion of the post-modernist analysis of knowledge and its expression which would be too lengthy to undertake here. What can be said is that critical approaches to text have long infiltrated language teaching. A very basic and early example of this infiltration is when a straightforward exercise on distinguishing 'fact' and 'opinion' in text (Grellet 1981) can be extended towards a discussion of the linguistic devices used to make opinion sound like fact. Such an understanding can give students greater control over the forms that will allow their own writing to achieve a more authoritative stance.

Understanding how opinion is disguised as fact can further be extended by a manipulation of the metaphors through which such an effect is achieved. These metaphors disguise the author behind the events that they recount and the foregrounding of the events as items that appear to have created their own narrative. Thus, using the ideas of Low (1999) one can inform students that authors use text as a persona behind which they hide, attributing to it the human functions of speech, narration, action, relocation, observation, hearing, thought and interpretation. They can then hunt down such expressions as:

- 114 the form *served as* a marker (action)
- 115 's study thus *provides* (provision)
- 116 the conclusion *speculates* (thought)
- 117 an important limitation of this study *lies in* the fact that (relocation)
- 118 an important limitation of this study lies in how..... (relocation)

Entailments can also be studied in order to find and memorise possible collocations. For example, teachers can point out that ‘limitations must lie in something’, eliciting ‘problems’ and ‘facts’ as ‘the container’ of limitations as in ‘limitations lie in the problem that’ as in 117, above. They can extend the study to an example such as 118, elaborating upon how a clause can be the container of limitations, thus revealing how text itself can be reified without the need for any metalinguistic assessment as to its factuality or more general nature.

Even if separated from the post-modernist agenda, such a discussion has the clear linguistic purpose of enhancing students’ control of rhetoric in the L2. A sense of metaphor and metaphorical usage in text can also alert students both to the meanings an author is trying to convey and to the nature of the devices that they can deploy in order to convey them.

Recently, I asked a class to hunt for metaphors that discussed economic activity as a form of warfare in a text on the perils of globalisation and free trade. I stressed that this type of rhetoric was not unusual but asked how far its density in the text in question invoked the author’s sense of a crisis by which we were about to be overwhelmed. Such critical approaches can be interlinked with the more neutral language teaching task of using image schema to organise lexical input. Thus, students do not gather lexis around the subject of international trade but around the topic of trade as warfare. I will look at this topic in more detail below.

It has been suggested that our study of metaphor posits an idea of language as motivated (Heine 1997). Language can no longer be perceived as an abstract and randomly structured system for the manipulation and representation of meanings. In short, language can be characterised as produced out of its communication of meanings and those self-same meanings are produced out of the structures that cognition imposes upon language.

The above proposition also allows the notion that ideas are not simply out there and found when our deductive reach becomes great enough. The answers that we give to questions are influenced by the nature of the questions that are asked. (Schön 1963, 1993) Questions achieve this influence over the answers they evoke by employing the

metaphors in which the response has to be phrased. In a similar vein, Kuhn (1993) has postulated that revolutionary changes in science are achieved only when the metaphors are themselves changed, allowing the answers to occupy a new conceptual territory.

For language teachers and, perhaps, educators more generally, there are two main points to take on board. The first is the manner in which a metaphor can distort one's conceptualisation of a task. For example, an approach to learning that has been popularised in ELT is neuro-linguistic programming. The programming metaphor is important to this approach as it makes metaphorical assumptions about learning as mental re-orientation or even brainwashing. The issue here is not one of whether or not metaphors are necessary in order to characterise approaches to language learning because, clearly, they are essential to the description of any abstract process. The point is that teachers and trainers need to be aware of the manipulative power of metaphors and of a metaphor's capacity to channel thought in particular directions. To obtain such an awareness may further develop an educator's own ability to recast questions in new metaphors and thus to approach them from a novel perspective while generally fostering a more creative approach. As has been raised in respect of how metaphors compel attention (see section, 3.4.4, above), the development of this type of metaphorical awareness among teachers and trainees can instigate change in their own sense of how they should approach their work (Cortazzi and Jin 1999).

This type of metaphorical awareness can further influence the even more difficult task of engineering wider institutional change, perhaps by influencing the way in which the institution's members perceive it. Morgan (1997) has proposed such an approach to the business community as a way for managers to review their organisation and how well its nature serves its particular functions. An important aim is the need to conceive the organisational system itself, less as a machine that delivers the product and more as a 'brain' or autonomous unit controlling the delivery process. A corollary of the 'brain' metaphor is the key 'learning' metaphor when the organisation is responsive to changes in the business environment not as a consequence of considerable re-organisation but as a facet of its nature, thus itself altering the way in which its members operate.

Morgan's approach suggests the use of metaphor by staff to appraise their effectiveness. Its relevance is both direct and indirect. Language teachers could perceive this as a method to:

- appraise institutional or classroom organisation
- promote classroom discussion, as in for example the appraisal of organisations with which the students are familiar
- foster the construction of a critical discourse

The last point again forges the key link between an instrument of criticality and the type of language used to express it. Thus in an appraisal of a classroom as militaristic and the teacher as too like a commander-in-chief, students are constructing a discourse of militarism out of the metaphor that fosters their powers of criticism and perhaps their awareness of their own learning environment. The same holds true when Morgan's work is given more direct relevance in the business language class and students are asked to appraise their own business organisations.

In sum, a critical approach to metaphor is not simply a way to foster an awareness of the devices out of which we construct explicit and implicit meaning but is also a mechanism through which students can advance their expression of the same. Also, as I will now explore, such an understanding cannot be separated from the relationship between emotion and affect. This is because the power of metaphor to organise and reproduce new discourse must also be linked to its existence as a means through which students relate that language back to their own conceptual system and to the individual experiences of which it is composed. In this sense, it is a means to establish emotional ownership over language, treating it as responsive to individual need rather than as some imposed system that reformulates the student's thoughts to make them something other than their own.

3.4.5 Metaphor is a means through which we explain to ourselves what is strange and unknown: how the affective nature of metaphor can make content more memorable and help students' fluency and powers of self-expression.

(Holyoak and Thaggard (1995) describe the mathematician, Poincaré, as documenting his own creative process as sleepless nights when 'ideas rose in crowds' and were felt to 'collide' until they 'interlocked' as 'stable combinations' 'The most fertile' 'combinations' would 'often be drawn from domains that' were 'far apart' (Ibid). This description characterises the paradox that is central to the idea of metaphor we are putting forward. On the one hand, the concept of an image schema suggests that metaphors arise from patterns and can be grouped in a principled manner. If metaphor is a key to conceptualisation, then it is essential to a process where uncertain meanings are given the identity of a known category. On the other hand, the 'combinations' are not predictable or singular. The 'combinations' create patterns that cannot be predicted from the nature of their components.

The use of metaphor as an artistic device indicates its capacity to have an emotional impact and its association with 'affect'. I have already hypothesised that part of the association between metaphor and emotional satisfaction may lie with a basic need to give unknown phenomena or strange sensations a conceptual home by locating them in our system of categories. For example, there are attributes of 'floweriness' that will make a flower what it is and which will be mapped onto other perhaps more marginal members of the species in order to allow them a conceptual home. Metaphor, as category extension, posits a breaking down of the detail of form into a less secure sense of the attributes that its topic and vehicle share.

There is a tempting parallelism between this assault on the distinctiveness of a form and the nature of 'affect' itself. Simon (1982: 336-37) characterised affect as diffuse and difficult to classify when measured against the precision of cognitive operations upon 'strings' of 'symbols'. It is as if metaphor, in suggesting an assault upon the

security of the symbol is symptomatic of a wider assay by ‘affect’ upon the integrity of cognitive operations.

In example 119, below, a Polish Jewish immigrant to the United States describes how she coped with America’s adolescent dating rituals and their impact upon a friend. English conceptualises time through space. The future is in front. Lives are journeys (Lakoff and Johnson 1980). The author describes her friend’s future as a road. The road is sunny and well-lit. Most of her readers will have images of such roads. These roads are largely peculiar to them and will evoke their own set of associations. Something as dimly perceived as the future of a person we will never meet is secured according to how each of us constructs a well-kept road. Metaphor proffers an opportunity for affective interference in a cognitive representation because its loosening of the sign symbol relationship constitutes a kind of permission for the listener or reader to reconstruct it in the web of their own associations.

- 119 For marriage of course, is what this is leading up to. Penny’s life, in her mind, opens out like a well-kept sunny road. She will be married. (Author’s data: Eva Hoffman, *Lost in Translation*, London: Vantage 1998).

The intrusion of affect here lets the reader assert conceptual ownership over remote characters and events. The character’s future is intertwined with the reader’s images of roads. Yet in this process there may also be a cognitive cost. The integrity of the prototypical form is lost when it must accommodate something that is not itself. The sunlit road is no longer just a road. The precision of the symbol ‘a road’ is sacrificed. A metaphor may be evocative and emotional because it risks the categories on which language depends, leaving a reader or listener to sway as if upon the edge of the impending dissolution of the forms into which they organise their world. Further, the cultural construction of the metaphor, where sunlit roads are evocative of a mild spring would be very different for those from desert countries where they proffer an endless band of tarmac melting into a haze. Proffering a metaphor therefore will make the author’s control of their material hostage to reader’s own web of culturally constructed associations.

The very existence of metaphor warns against our taking the contrast of cognition and affect too far. 'Cognitive operations' can be seen as riding 'piggy back' upon those of the emotional kind, (Bruner 1986). Affect helps us to represent cognitive operations to ourselves as significant and meaningful, thus presupposing their underpinning as emotionally significant and memorable rather than as insignificant, mental ephemera. It may determine positions in apparently rational argument as much as reason itself (Lakoff and Johnson 1999).

Additionally conceptual metaphor and image schemata represent features of cognition, becoming the stabilisation of a shared response to experience. Emotion itself cannot be disassociated from category. Fiske (1982) shows an implicit linkage between prototype theory, category construction and affect. Thus the category of a politician will evoke negative affect and a school friendship the positive. Most interestingly, Fiske suggests that these category associations are schematised forming a pattern of pre-set responses to experience. I would argue that such responses are one of the ways in which a language is embedded in a culture. An extreme example might be how Spanish culture once despised bathing as a 'Moorish' custom and how consequently the Aztecs despised their Spanish conquerors as 'dirty'. Bathing had a different cultural significance and evoked a different web of associations. The increasing effects of cultural globalisation means that few of us have to deal with anything this extreme. But our switching between languages remains sometimes a switch between the schematisation of category and affect that might have formulated just such a disdain. It therefore remains that one of the more difficult features of the language learning task is to retain a sensitivity to an L2's common, affective underpinning while adhering to the value system out of which the learner's identity is constructed. Equally a quandary for the learner is whether they should risk that identity by attempting even a partial modification of it and for the teacher how far they should tempt the student towards that act of schematic re-engineering.

The tension between notions of affect and cognition may also reveal itself in how the interest in affect has roots in behaviourist psychology. For example, Pavlov's interest was in conditioning emotional responses to specific phenomena as when an eleven-month old boy was taught to alternatively like and dislike a white rat according to whether or not its appearance was heralded by a frightening sound (Davison and

Neale 1986). For the cognitivist, it may be more difficult to accommodate this evocation of responses that are free from conscious mediation. Metaphor research might prove to be a means through which these two opposing trains of thought can be reconciled, if only because it encourages the possession of meaning by individual schematisation of experience.

The interest in how we can condition a subject into associating a phenomenon with a particular emotion works through to humanistic educational programmes and the interest in giving a learning objective a more intense emotional value. Such learning objectives can also be formulated as learning about oneself, as in the domain of psychotherapy. Cox and Theilgaard (1987: 18) discuss how psychotherapy can be 'facilitated by the use of image and metaphor.' Thus, a subject's emotional world can be 'contained, changed or consolidated' by the use of poetic imagery. There is a potential, directional paradox, however, in that the objective of psycho-therapy is to begin with the superficial then to go 'deep'. By contrast, metaphor provokes an affective response almost before it is consciously understood, touching an emotional depth before a reflective surface. The paradox can be reconciled in that a goal of psychotherapy is to bring poorly formulated thoughts to the surface. Metaphors that are superficially mundane or 'faded' can suddenly be vested with significance as when a patient apologises for being late because a dentist has been taking their 'crowns' off and the therapist asks:

120 How many crowns have you had?

 Are you talking about teeth?

 I'm talking about crowns (Ibid: 105)

And the therapist can then start to explore the significance of a 'crown' to the patient, perhaps returning to its literal referent or by playing with its other associated meanings in order to trawl for the thoughts that a subject may need to express. The alertness of a successful therapist to the metaphorical significance of a casually used term must have clear lessons for language teachers. They can focus on this casual emergence of meaning in an off-hand remark in order to help students track chains of associations. The associations will not only loosen students' thoughts and trigger the language in which to express them but may also help to explore the webs of meaning

out of which a language has been constructed. In this way, a teacher can use a conceptual metaphor such as 'up is happy' to introduce language for describing positive states of mind (on top of the world, on an up etc.). The conceptual metaphor brings order to an idiomatic and superficially chaotic area of language. It also becomes the means through which students can explore their own memories. Thus, the metaphor guides them into a language's conceptual core and fosters an emotional identification with it.

The importance of affect in language learning was made clear by Gardner and Lambert's much-cited study on motivation (1973). This showed how learners who were motivated by a desire to integrate into a culture would be more successful learners of that culture's language. Students were positively affected by the emotional pull of wanting to be part of a cultural group. Approaching the same phenomenon from a contrary perspective, Mitchell and Myles (1998) discuss the feelings of alienation and frustration felt by adult migrants who cannot gain full access to their host countries' institutions because of their poor language. The implication is that a poor control of a language and a consequent failure to exploit a host country's institutions can compound each other in producing a loss of self-esteem and confidence that will in turn impoverish linguistic performance or inspire negative motivation in respect of the target language. A target language thus constructs itself not simply as an opaque and difficult system but also as one through which institutional access and full social participation is also made opaque and difficult. A positive response is in how a sense of metaphor can both help students to explore and understand such feelings while also bringing them closer to the cultural construction of a language and thus to a fuller mastery of its meanings.

Issues of low self-esteem and a lack of confidence by users of a foreign language have fostered the interest of teachers and educators generally. Moskowitz (1978) has given one of the more powerful and practical expositions of how such an awareness can translate into clear classroom techniques. She also revealed an implicit understanding of the power of metaphor in the psychotherapeutic techniques that she makes available to the language classroom. Moskowitz understood the capacity of metaphor to form unformed ideas, as Cox and Theilgard (1987) described it. She releases vehicles of thought that will track, concretise and carry back students' own

associations, motivating their use of the language with the need to describe that process and thus embedding the class in their own emotional life. In order to do this, she uses guided fantasies to help students make the target language memorable by daring them to make it into a vehicle through which they explored and expressed some obscurer attributes of self. The guided fantasy partly works by throwing out a metaphor, then stopping while each student pursues the thoughts that are thus evoked. For example, students are asked to pass a parcel that becomes heavier and heavier as each one loads it with their pain, then are left in silence to reflect upon what that relief of pain means to them (Moskowitz 1978).

A more recent extension to this approach can be found in a collection of techniques known as Neuro-Linguistic Programming (NLP). A key concern for NLP trainers is in achieving personal change through what are called 'submodalities'. Submodalities are the generally unconscious construction of external stimuli within a subject. They may be the mental pictures that an individual constructs of particular concepts. They could also be the unconscious response to such factors in the immediate environment as the colour of a room (James 1994). Gordon (1978) named such representations, 'metaphors' and saw an instrument of therapy as arising from their manipulation and change. In this vein, Buckalew and Ross (1981) conducted a study in how the effectiveness of a placebo can be changed by the manner in which a subject sees its packaging (James 1994). The presentation of the placebo is thus a metaphor of its potential effect, exerting unconscious influence over the patient. A core NLP strategy is therefore to try to change the metaphors through which a given task is perceived in order to help a learner construct a more receptive attitude towards it.

In the domain of language teaching and learning, this means first helping students to express their perception of themselves as language learners. Their perceptions can then be shifted by such techniques as *anchoring*, where they set their perception inside a different, perhaps more positive construction. A student who is poor at presentation will thus envisage themselves as a perfect presenter. In this vein, a technique called *modelling* could mean their taking a strong presenter as a model, then role-playing them.

It should be clear then that our view of metaphor does not simply enter the language learning arena as a means to help understand how language is constructed. Metaphor as a linguistic form is a representation of how the individual can fashion meaning in a way that allows it to reflect their emotional experience. A teacher's sense of metaphor can help them guide students into the conceptual core of a language, responding to the schematisation of its users' collective experience as negative and positive affects. Metaphor triggers sets of emotional associations and initiates an exploration of the language's own bedrock of positive and negative affect. In these senses, my sense of metaphor is far from being an addition to the learning objective. It entails a learning of language through a reconstruction of the processes through which language is built and upon which its emotional significances depend. I will now look at this more closely within the domain of learning and acquisition theory itself.

3.5 Metaphor represents cognitive processes that are implicated not just in the construction of language but in its acquisition. Metaphor must be situated in the learning process.

My argument thus far has assumed that language learning is assisted by the development of both conscious and unconscious knowledge about how the language operates. I have suggested that a conscious or explicit understanding of the image-schematic basis of a language and the principles on which this is based can facilitate its mastery and control. I have also implied that there are linkages between a conscious use of metaphorical forms and the affective and less controlled responses that these evoke. Such an implication suggests that the borderline between knowledge about language that is understood by the learner, and is explicit to them, and an unconscious deployment of the same may not always be clear. Unfortunately these are assumptions that many would question.

The influence of form upon the development of second language competence remains a controversial issue in second language acquisition research. Much research assumes that adults have some access to the faculties that allow children to acquire first language forms with unconscious ease. An access to such faculties, it is argued, would mean that learning more about a language is unlikely to help us use it more effectively and may even impede that process. Krashen (1985 and 1989) assumes that there is a mental separation between the language that we acquire and that which we consciously learn. Learnt language cannot become acquired language. Our knowledge about a second language cannot therefore help us towards achieving the reflexive mastery that is associated with the first. Less radically, but in a similar vein, Jordens (1996: 443) concludes: 'it is not surprising that form-focused teaching, providing positive as well as negative formal input, does not appear to affect the development of intuitive structural linguistic knowledge'. His view is finally that what does change matters is 'the right kind of input at the right time' (ibid: 443).

However, it would be wrong to assert that all students of language acquisition would adopt this position or even that they agree as to the nature of the processes they seek to describe. In contrast to Krashen (1985), such scholars as McLaughlin (1987), Ellis

(1990), Bialystock (1988), and Pienaman (1998) have all put forward theories that allow for the interpolation of cognitive factors into a process that they also characterise as linguistic. Such views offer something to those teachers who believe that acquisition can be advanced if learners first develop some conscious knowledge of the structures that they will have to use. Yet finally, even these views do not square well with the view of mind and language structure I am trying to advance.

Therefore, there are two acquisition questions that my thesis will have to address.

- 1) Is it any longer useful to put forward an approach to language teaching that will at some level involve students in thinking consciously about the nature of the target language?
- 2) Does the view of a metaphorical mind that we are putting forward have anything to say about the process of language acquisition and learning itself?

As I will show, neither of these questions has an easy answer and should demand a more extensive treatment than can be given in a thesis dedicated to so general a topic. However, in respect of the first, I do believe it is possible to demonstrate that the case for unassisted or natural classroom acquisition by post-pubertal learners is deeply flawed. I will make this argument in order to clear ground for an answer to the second point. However, this answer must involve an extensive reconsideration of the notion not just of language acquisition but of language learning. Here, my objective can only be to make some tentative suggestions as to how our ideas of second or foreign language learning could be re-examined from a perspective that is influenced by our understanding of how metaphor, language and conceptualisation inter-relate. The extensive theoretical and empirical study that such questions properly demand can hardly be begun here, however.

Before attempting a summary of these issues, I should first make clear that my concern is with post-pubertal second language acquisition and/or learning. The first and second language acquisition of very much younger subjects may involve different features entirely. Whether our sense of metaphor could illuminate the territory of the younger subject is a question I will put aside for now.

The teaching strategies that I will put forward are intended for learners who are capable of extensive conscious thought about language and, therefore, my focus will be on how this group obtains second language knowledge.

In respect of this group, I believe SLA (second language acquisition) theory that ignores cognitive factors to be flawed for the following reasons:

- 1) There is no reliable way to distinguish acquired language knowledge from learnt language knowledge.
- 2) Innatist theories of second language acquisition have a contradictory relationship to the Chomskyan (1978) theories of language from which they claim support.
- 3) There is no satisfactory theory for how learnt and acquired knowledge interact to produce a given level of performance.
- 4) Some SLA theory overstresses the uniqueness of the language learning/acquisition task.
- 5) The conclusions of metaphor research in cognitive science do not support the generative position on which some of the more consistent positions about SLA are based.
- 6) There would seem to be little neurological support for an acquisition/learning distinction that is based on modular structures of mind. Further, theories that exploit notions of modularity may not be consistent with the ideas from which they claim support.

Cook (2000) has made the further point that second language acquisition is an inherently unstable process. The conditions under which it will occur involve states of mind and environment that not only fail to repeat themselves from event to event but which are also subject to constant change within the experience of one individual. Explanations are bound to be inadequate when these depend upon the staged re-configuration of a single and constantly reduplicated structure of mind.

I will now set out these arguments in more detail.

3.5.1 Theories of metaphor and acquisition: there is no reliable way to distinguish acquired language knowledge from learnt language knowledge

As has already been implied, a major problem with acquisition theory relates to difficulties with the term itself and how it is to be distinguished from learning. SLA theorists distinguish between second and foreign language acquisition (Lallemant 1996: 3). Second language acquisition traditionally referred to a process of acquiring a language in a community where it predominates (ibid: 3). Foreign language acquisition would generally refer to a process that is outside the said community. For Krashen (1985 and 1989), the distinction refers to the nature of the mental process. Second Language Acquisition (SLA) is natural and partly mimics the processes through which the individual acquired their first language. Learning is conscious and posits an on-going conscious interference in the production and interpretation of language.

On the face of it, to relate the acquisition and learning distinction to the features of a sociolinguistic environment is to make a claim that confuses the nature of a process with the setting in which it occurs. It is clear, therefore, that acquisition is only a consistent basis for linguistic analysis if it refers to a distinct psychological process. This psychological process could as well be triggered by a classroom environment as by one that is less contrived. Yet the problem now is that we are dealing with a distinction between two internal and unobservable processes. We have lost acquisition's distinguishing feature, namely the setting in which it occurs. Such a loss means that there is no way of knowing whether a given state of language knowledge is a consequence of learning or acquisition.

The above situation means that all SLA studies risk circularity if they hold that a correct and reflexive command of language will result from acquisition whereas a hesitant, considered and sometimes erroneous use suggests learning. The circularity results from the belief that language performance is largely correct and reflexive if it is categorised and studied as an acquired competence. There is no method with which to suggest the language has been learnt. In short, the distinction is not open to disproof.

A solution might be to accept the sociolinguistic nature of the process. But there are circumstances which make even this distinction difficult. For example, one could accept that second language acquisition occurs in the country where the TL is the predominant mother tongue and foreign language acquisition occurs where it is not. Yet, the world abounds with cases where children go to a school to be taught in a language that is not their mother tongue and which may not be indigenous in any sense. On the surface the school functions as a kind of second language community in which the pupils perceive themselves as foreign. Such children may find no community outside school in which to practise that language. They may switch from classes where they consciously wrestle with that language to others where knowledge is assumed and they must focus on meaning. Yet once in the playground they may revert to some other community language. There is no clear sense in which such children are in a second or foreign language situation. The reality of socio-linguistic geography may thus break down a social distinction that is at least theoretically clear.

3.5.2 Metaphor and acquisition: generative theories of SLA and Chomskyan (1985) theory

Although Krashen (1985) does not actually justify his theory through a Chomskyan approach, the basic hypothesis he put forward has led its subsequent proponents back to Chomsky's ideas about language and mind. In this section, I will first show how it was necessary to go down this route if Krashen's basic premise was to be sustained. I will next show how such a course is in fact at odds with the Chomskyan theory from which it claims to draw support. I will do this by looking at then questioning the following aspects of SLA theory:

- 1) learning versus acquisition
- 2) a natural order and the silent period
- 3) SLA and the theory of Universal Grammar (UG)
- 4) Second language acquisition and the modularity of mind

Of Krashen's (1985) two different routes towards a second language, that termed learning entails a conscious process with perhaps an undue focus on form. The learning route might encompass the declension of Latin nouns by rote or the behaviourist drilling of structures in a manner that sought to help students towards their reflexive mastery. Learning could also describe the mental processes of a student in a communicative language class when, for example, they exchange information with a partner in an exercise whose objective is to provide practise in a particular point of lexis or grammar. According to monitor theory, such conscious learning results in an attempt to exercise conscious control over language. Such control makes a true facility with a second language impossible.

3.5.2.1 Generative theories of SLA and Chomskyan (1985) theory: acquisition versus learning

Some early cognitivist theory characterised successful learning through the notion of automatization. Automatization supposes a transfer of learning from a conscious to an unconscious domain (Zobl 1984). Thus, once patterns or routines are automatized they become part of the learner's unconscious repertoire and no longer require a conscious exploitation of cognitive strategies. For Krashen (1985), however, a reflexive control of some feature of the target language does not suppose the successful automatization of consciously learnt knowledge but the unconscious acquisition of the same. The route to a second language by learning is held to be largely unsuccessful.

For Krashen, the way forward involves the unconscious deployment of the mind's 'language instinct' in order to process input. This input consists of the language that the learner hears and reads. According to Krashen, the input at one stage of learning should be slightly more complex than that which is processed at the previous one. If this is the case, the input will remain broadly comprehensible and it will be successfully processed.

Krashen's (1985) thesis has undergone considerable criticism (e.g. Ellis 1990, McLaughlin 1987), and some development (e.g. Schwarz 1987). The focus upon input

has been particularly problematic. Krashen characterises second language acquisition as a predominantly mental activity. The mental nature of acquisition makes the processes of language production largely irrelevant. Acquisition occurs when the mind processes comprehensible language input. The assertion is thus that teachers are mistaken when they treat the language class as an arena that requires a communicative and/or practice use of the target language between students. The focus of the language class should be upon the provision of comprehensible input, which the students can process.

Many teachers and language learners have difficulty with the idea that the acquisition of a target language can be disengaged from its use. An intuitive pedagogical judgement would be that students who do not produce a language will not acquire productive skills. By the same token, it is difficult to accept that the practice of routines or patterns is unhelpful when so much classroom time is dedicated to that activity. Traditional language teaching is largely guided by the principles of presentation and practice. For teachers schooled by this intuition, it is difficult to reformulate a pedagogy in which practice is irrelevant. Another common difficulty for those raised on traditional pedagogy may also reside in how often the practice of whatever input depends upon breaking down a complex task into separate sub-routines, each of which is drilled, mastered then readied for re-assembly. Such practices in language teaching accord with a more widespread assumed wisdom about pedagogy whether of sports, work-related skills or other forms of knowledge that are related to measurable performance.

Such assumed pedagogical wisdom is also supported by some early cognitive theory. For example, Posner and Snyder (1975) see that our processing of a given task may be both controlled and spontaneous. Controlled processing may involve conscious thought and will therefore be cognitively more demanding. Controlled processing will therefore require more cognitive space. We need to process some parts of a task reflexively in order to avoid cognitive overload. Yet, we also require controlled procedures in order to deal with situations that are unfamiliar or difficult. Arguably, reflexive processing would be obtained through practice of the parts.

Many teachers who have adopted quasi-behaviourist techniques of pattern practice will recognise a moment of pedagogical disillusionment that I experienced early in my career. I had drilled the 'going to future' to perfection. I then asked a student casually as he was leaving the class, what he was going to do that evening: 'I go see my father' he said after having evidenced a faultless control of the same structure in practice. According to Posner and Snyder, such a lapse is entirely explicable. The casual remark presents a new situation, perhaps forcing the student back to a controlled form of knowledge processing. The mistake can therefore occur.

However, the argument can be made that second language teaching is different from other forms of teaching (e.g. Cook 1985). It is different because it does not depend upon an inculcation of the mind with routines that are strange to it but upon the mind's completion and structuring of data to which it is naturally attuned. In Krashen's case, his theory may allow for a development of the distinction between controlled and automatised processing towards that which exists between implicit and explicit knowledge.

Explicit knowledge is found in the activities of the monitor, which interferes with the reflexive control of language. Implicit knowledge of a structure such as the present perfect would show itself through a correct use of the same by a student who would be unable to make explicit the type of context such as the indefinite past that had required its use. However, the development of a reflexive control would never be through conscious practice. It may even be that these underlying organisational principles used in an implicit control of language are already in place. Evidence for this has been sought most powerfully through the notion of a 'natural order hypothesis' and of 'a silent period'.

3.5.2.2 Generative theories of SLA and Chomskyan (1985) theory: a natural order and the silent period.

According to the 'natural order hypothesis,' we acquire 'the rules of language in a predictable order' (Krashen 1985: 1). Rules are here understood to be the rules of

syntax or grammar. This proposal was supported by several studies (e.g. Brown 1973, Dulay and Burt 1974).

Brown (1973) has provided evidence to show that all children acquired certain morphological and grammatical features of English in the same order. Dulay and Burt (1974) tried to show how a similar order could exist in children acquiring their second language. Their evidence was based on how children acquiring a second language tended to make the same mistakes in respect of particular morphemes at the same sequence in time.

The other key piece of evidence for acquisition used by Krashen (1985) was the silent period. This feature has been observed among children who when first introduced to a new language will fail to reproduce it for an initial period. Unless coerced into speech by a language class, they will be silent. At some moment of their choosing they may then reproduce the language. For Krashen, this provides evidence for how acquisition can arise from the silent processing of input rather than from extensive self-motivated practice in speaking or reproduction. This can also be taken as evidence for the mentalistic basis of second language acquisition. The hypothesis is not that the silent period is unproductive, rather that the child is processing input in order to formulate the language competence that may at some later point result in production.

However, many difficulties with Krashen's thesis remain. First, there is some doubt about the universality of the silent period (McLaughlin 1987). More difficult still is the question of how learners deduce when they can or cannot use a given grammatical structure. Krashen's (1985) answer is that the learner uses context and knowledge of the world in order to understand the language. Yet this entirely fails to explain how a child can deduce the rule for, say, passive formation, then transpose this to other appropriate contexts which further demand passive constructions that the learner has never actually heard (McLaughlin 1987).

Cross-sectional morpheme studies of the type that support the natural order hypothesis are also problematic. Dulay and Burt (1974) have been criticised for the

cross-sectional nature of their studies (McLaughlin 1987). A cross-sectional study takes snapshots of the progress made by the population of a given group at a series of moments in time. Thus what is being measured is not the subjects' development over-time but the accuracy with which they use a given morpheme in 'an obligatory context' at a particular moment (McLaughlin 1987: 32).

Yet, despite some weaknesses in the methodology of natural order studies, their hypothesis has quite general acceptance, even among those who, like Ellis (1990), perceive the conclusions that Krashen draws from them as unwarranted.

3.5.2.3 Generative theories of SLA and Chomskyan (1985) theory: SLA and theories of Universal Grammar (UG).

One way to substantiate Krashen's notion of acquisition was to rework Chomskyan theory concerning first language acquisition and make it apply to the second language case (e.g. Schwarz 1987). Chomsky (e.g. 1985) sought an answer to the question, perceived as 'Plato's (Meno's) problem,' which asks how a child can construct language knowledge without knowing anything previously. Put in wider Platonic terms, the problem is how one can make sense of a body of knowledge when one has no a priori knowledge structures with which to do this. At the simplest level, the answer is that one cannot. Therefore, in order to learn something, one must possess a knowledge structure with which to learn it. In the case of language, this knowledge is perceived as a universal grammar or UG.

Universal Grammar is held to be an autonomous and common core of rules that is common to all languages. A UG represents the parameters with which every human is born and which the infant subsequently uses to structure their seemingly random and incomplete linguistic input as the syntax that can generate a language. The child passes from an initial state when they possess only a universal grammar into a 'steady state' where the rules or parameters of this UG have been reset according to the input of their first language (Chomsky: 1985). As the notion of a 'steady state' implies, the parameters of a UG are reset as the fixed and autonomous syntax or 'I' language

which will govern the production and parsing of the language throughout its user's life.

Krashen (1985) made no reference to UG. However, he asserted that second language acquisition arose from the mental processing of second language input. This assertion requires that the successful processing of input should result in the construction of a competence that would be responsible for future production and perception. The often limited nature of exposure to a second language means that it is likely to provide an even more impoverished or limited stimulus than that of the first. Therefore, in order to be sustainable, Krashen's thesis requires an in-built mechanism that the mind can use in order to structure and complete as a language competence the limited second language data to which it is exposed.

Some earlier studies (e.g Newmark and Reibel 1968) had already argued that even classroom-based second language acquisition could proceed in much the same way as first, thereby suggesting that second language learners had available to them the same biological mechanisms employed by first language learners. It is not difficult to see how useful such a proposal would be to those who were eager to maintain Krashen's input-based model of acquisition. If second language acquisition is based on the successful processing of input one must assume a mechanism that will be responsible for this. This mechanism could be the same set of innate organisational principles upon which first language acquisition depends, namely a Universal Grammar.

The suggestion is that the mature learner rediscovers the unconscious acquisitive processes of the infant by using their innate capacity to structure language from the impoverished and disparate linguistic stimuli by which they are surrounded.

Evidence for the deployment of a UG in second language acquisition is varied and extensive. Supporting notions are that of the 'projection device' (Zobl 1983) and 'accessibility hierarchy' (Gass 1979).

The notion of 'the projection device' (Zobl 1983) treats grammatical rules as occurring in clusters. Thus if one basic rule in a cluster is learnt, this will trigger the learning of all the rules related to it. For example, relative clauses in English are

governed by several rules pertaining to the case of the relative pronoun and to its possible omission or obligatory inclusion.

A connected and supporting idea is that of the ‘accessibility hierarchy’ (Gass 1979). This holds that the prior acquisition of what is held to be a ‘marked’ form will facilitate the acquisition of ‘unmarked ones’. The notion of an unmarked form is also one that derives from theories of Universal Grammar. Unmarked forms are those that show themselves to be the closest expression in a given language of the syntactic structures that are common to all languages. Thus, if unmarked forms are acquired before marked ones then this can be taken as evidence for how the learner’s acquisition is being guided by the universal parameters within rather than by the particular orders in which the external language data are presented.

I illustrate, below, the accessibility hierarchy with three sentences:

- 121 The person who came to dinner
- 122 The meat that I ate
- 123 It’s a better book than that which you gave me

According to the hierarchy, the first two sentences (121 and 122) are treated as being high up because their use of the relative pronoun as subject and object can be regarded as common in most languages. 123 is rarer and can therefore be regarded as marked or low down the hierarchy (Comrie and Keenan 1978).

Gass (1979) and Zobl (1984) claim that they have evidence to show that when a syntactic cluster is first introduced high up the hierarchy or through unmarked forms, then learners will find it more difficult to manipulate marked structures. These claims can gather support both from the notion of an accessibility hierarchy and from the more profound contention that Universal Grammar is a factor in how learners of second languages structure and make unconscious sense of input.

Research such as that of Zobl (1984) can also be used to question the idea implied by Krashen (1985) that a focus on form in the classroom will do nothing to advance

acquisition. The implication is that instruction directed towards form will assist students if it respects the learners' underlying natural order of acquisition.

Yet, those who support the idea of unconscious acquisition as qualitatively superior to conscious learning may over-emphasise the adult learner's lack of success when measured against a competence acquired from infancy on. The fact remains that some learners achieve a mastery of their chosen language that is marred by scarcely more than a flawed control of its phonological system. Many trainers will have found that the opening of the CIS and Central Europe has reinforced this last point. The consequence of these political events has been an increase in our contact with language specialists who appear to have obtained their very developed knowledge after very limited contact with native speakers of the target language. Instead, such specialists may attribute their achievement to a determined and conscious application of old behaviourist and grammar translation routines. They represent a phenomenon for which Krashen's basic acquisition/ learning distinction does not provide a proper explanation.

Yet one might argue that there is only self-deception among those who believe that they have proceduralised their conscious knowledge of a second language into a reflexive mastery. One might suggest that when such learning appears to be successful, it is not because of the conscious strategies that have been used in the classroom. The level obtained in the L2 is a result of processes which those involved do not fully understand.

I could claim that while such speakers focused on their mastery of language form they may have been engaged in an unconscious process of acquisition, but not of the language items with which they consciously grappled. The proposal here could be that the learner who consciously wrestles with the forms of a target language is also unconsciously engaged in processing other, perhaps unrelated, input. In other words, when an English language lesson is focused upon a language topic such as 'greeting and welcoming', the learner may unconsciously process input resulting from an explanation of when the British do and do not shake hands. The language whose first purpose was to support a cultural point might thus be processed as the input from which a spontaneous and natural use of language will develop. At the same time, the

lesson's linguistic point will remain irrelevant to the development of a reflexive competence that is achieved by mentally restructuring the language in which that point was embedded.

The difficulty here is that we still have no explanation for the learner who may master a structure or area of lexis, then go out and consciously, then reflexively, use it. Few language learners would fail to remember having done this at some point or other and several have documented the occurrence of this process within their own learning (e.g. Gregg 1984).

Another, and perhaps more complex, problem concerns the relationship between the language that has been consciously learnt and that which has been unconsciously acquired. Such conscious and incremental learning requires a more plausible and involved explanation. Because the question raises problems about the connections between different facets of mind, the explanation requires a wider theory of mind and examination of the way in which Chomskyan linguistics has been integrated into the same.

3.5.2.4 Generative theories of SLA and Chomskyan (1985) theory: SLA and the modularity of mind

To allow Universal Grammar a role in the construction of second language input may answer some questions about the nature of the mental processes involved in an input based view of acquisition. However, to give such an answer is problematic on two counts: first, in respect of the theory on which it is based and second, in relation to the questions it tries to answer. I will first consider it in respect of the theory on which it is based.

Chomsky's perception of Universal Grammar is of a set of parameters that are innate and autonomous. The parameters' autonomy also implies modularity in the sense of their being isolated from other mental processes. By this is meant that UG is a separate and autonomous feature of mind with which the human individual is born. Effectively, it is an embryonic 'brain language' (Burton-Roberts and Carr 1999). The

parameters of this module are reset by input from the first language with which the child comes into contact. A simple analogy would visualise UG as a series of electrical switches. The switches are wired in a particular way forming a pattern common to all people. The input resets the switches of the UG in order to create a given language grammar or *i* language, be it French, Ibo, Arabic or whatever. The *i* language is a syntax which is capable of generating and parsing the L1. This entails that UG effectively disappears after the first language achieves steady state and the child matures. UG becomes the '*i* language' because it is restructured by it or because its parameters have been reset. Equally, the confused input of the language with which the UG comes into contact is ordered and completed as an *i* language.

The consequences of this are clear for those who claim a role for UG in the structuring of second language input. Either UG is unavailable because it has vanished into the L1, or Chomsky's original theory requires substantial modification if it is to accommodate a generative view of SLA. There is of course no certainty that Chomsky's version of his theory is the correct one. Yet, there are very clear reasons why Chomsky constructed his theory in the way he did. These reasons should be examined before we consider rewriting what must be a quite fundamental premise.

If UG is available to second language input, then we will have to change how we think about it. An available UG would have to be somehow external to the part of the mind in which language, whether first or second, is supposedly restructured. It would have to be separate because otherwise it would be restructured into the *steady state* for which it was partly responsible. It would then cease to exist in its original form and thus cease to be available to deal with the second language. Therefore, in order to hold onto the idea of a UG available to second language learners, it would have to be isolated from the input that it structured. If this were the case, it would assume a different form. UG would no longer be a set of parameters that become the rules out of which a language is generated. UG would remain, as it were, underneath the language it has structured and available to organise quite different data. This is problematic on several counts.

UG was not simply conceived as a faculty that organises input. It was a faculty that interacted with input in order to reorganise itself as the *i* language able to generate the

syntax of a given language. The theory of a generative grammar requires this view if it is to maintain its consistency.

Generative grammar holds that the sentences which make up our linguistic performance are produced and deciphered according to rules and parameters that are, finally, structures of mind. Yet though part of mind, these rules can be deduced out of the linguistic episodes or 'tokens' (Burton-Roberts and Carr 1999) that are language performances. Our linguistic performances can reveal the structures out of which they are produced. For the generative position, this is axiomatic, because what generative linguists do is examine the language we produce (our *e* language) in order to discover the rules from which it is produced (our *i* language-). From these rules, one can find those that are universal to language, and which therefore make up a Universal Grammar

If a UG is reconceived as separate from the input it organises, then it can no longer exist as a structure that can be deduced out of the language for which it is responsible. There is still no reason why we should not accept this change in the way UG is described. We could choose to give UG a role in the creation of an *i* language or of a generative syntax but extrapolate it from that syntax itself. Yet, to do so is to jeopardise the methodology through which the generative enterprise proceeds.

In the Chomskyan model, syntax is conceived of as autonomous and separate. In large measure, it constitutes a language faculty and furnishes the structures of that faculty. The view that UG is implicated in second language acquisition would necessitate its becoming a filter that structures input according to its own organisation. Yet, this supposes a very different role from that which was first conceived. A UG whose parameters are reset according to the input of a given language will in some measure become the *i* representation of that language. Yet the implication now is that UG is reset by and arranges linguistic data. It then sends these data off for storage elsewhere before partially resetting itself as if in readiness for a second data stream.

The problem that now arises is one of method of study and proof. The 'generative enterprise' is motivated by the desire to find in different languages the syntactic

features that are common to all languages. It can search for these structures in one place only, in the languages themselves. This is axiomatic to its being a linguistic as opposed to a psychological or even a neurological theory. However, if UG summarises a set of regulatory principles that can be deduced out of a given language then it must exist within that language, albeit as a set of transformations from its original form. In this sense Chomskyan theory is entirely consistent. However, SLA/UG theory is now stating that UG is more a filtration mechanism or mould for data from which it remains separate. If this is the case, then its forms cannot necessarily be deduced from the product (linguistic performance) for which it is responsible. I will now explain why.

If UG has a role in second language acquisition then this undermines the generative study of it. It becomes purely a structure of mind and there is no longer any way of knowing the extent to which it is in language or not. Metaphors can be treacherous or friendly to this argument according to the side on which one chooses to come down, and this is what makes this argument fraught with difficulty. If we retain the filter metaphor, we could say that language is shaped by the filter it passes through, and therefore the forms of this filter can to some extent be read through the forms that it imparts to a given language. However, let us take another metaphor, one which implies a procedural complexity that is more appropriate to the subject in question.

Imagine that a language is a complex manufactured product such as a car (though it is far more complex even, than this). Imagine also that in future generations an archaeologist came upon a car but no sign of a factory. The only clues they had to the processes at work within the car factory would be the cars themselves. If this were the case, it would be impossible to determine the nature of the manufacturing processes responsible for the car with any certainty or detail. We might be able to analyse the constituents and even guess at an order of assembly. Archaeologists of course do just this, though with far simpler products and on the basis of a continuing tradition of manufacture. However, anything else would be surmise and such vital distinctions as those between just-in-time manufacturing and a normal assembly line would be entirely lost. If UG is separated out from the language it reconstructs in the way implied, then it becomes the car factory and the linguist is the unfortunate archaeologist trying to reconstruct the parameters of its manufacturing process with

guess work and surmise. The fact that language is far more complex structurally than a car makes the generative linguist's task all the more impossible.

Last, and perhaps more conclusively, something as fundamental to Chomskyan linguistics as the competence/performance, *i/e* distinction, disappears. There is no underlying structure residing in the mind-brain which can be found in language itself. Such structures have been taken out of language and their existence in the performance from which they were once considered deductible has been reduced to a question of surmise and guess-work.

In short, if UG has a role in the organisation of adult second language data, it must be seen as separate from the input it organises. If it is seen in this way, it can no longer be latent within a spread of linguistic performances. Those who take this view will therefore undermine their own case because they are effectively saying that language has parameters which they can no longer determine with any surety from the data that language accords them. More profoundly, the notion of an *i/e* language, competence/performance distinction will itself start to disappear. Language knowledge is no longer a feature latent in linguistic performance or in the utterances and writing of language users. Language knowledge is a feature of the mental architecture from which it has emerged. Linguistic performance may be marked by this architecture but does not contain its forms within their boundaries because the forms have been located elsewhere.

UG/acquisition theory is inconsistent with the Chomskyan theory on which it is based.

3.5.2.5 Generative theories of SLA and Chomskyan (1985) theory: the question of a modular mind.

There is perhaps a more profound and more basic difficulty for second language acquisition theory in general. This difficulty was raised above and remains unanswered by the conscription of UG into the acquisition frame. This is the problem of how second language learners can claim to learn language either by rote or some

more sophisticated form of practice and finish with a workable though sometimes imperfect knowledge. Basically, we are asking about the status of learnt knowledge when we use language, if successful language use is based upon implicit or acquired language knowledge. Schwartz (1999) answers this question by developing Fodor's (1985) theory concerning the modularity of mind.

It is now an established principle of cognitive science that colour is not intrinsic to objects in the world around us (Lakoff and Johnson 1999). Colour is a product of how the brain perceives the reflection of light striking different surfaces. Yet, unless we are colour blind, we have no choice but to allow our visual input systems to construct the world in colours.

Fodor (1985) ascribes this reflexivity and isolation to all input systems. A second feature of the input system according to Fodor (1985) has already been implied in the directness of its connections to the sensory organs. This is that the input from one sense does not interfere with that of another. Unless we suffer from synaesthesia, we do not smell what we see. We may of course be able to construct a visual image of, for example, a burning tyre from the smell of rubber. Nevertheless, when we go and look for the source of the smell, we may find that it was not a tyre but a foam mattress. In this way, we can disengage what our eyes tell us from what our nose does. We can do this because the input systems that they use are isolated from each other. The point here is that perceptual processing is perceived as modular. Fodor (1985) assigns sight, smell and touch each a separate module to cope with their very different kinds of data. More unusually, he also gives language its own module.

To assign language a separate input module is much more controversial. The production of language is clearly prey to conscious manipulation at some level. Even as I write this, I can make choices about the syntax I will use to represent a given meaning. However, the manner in which a given structure will select parts of speech appropriate to a given position in a sentence is certainly much less a product of conscious control. Thus, we do not decide to put a verb after 'to' in a simple sentence such as 'I like to go.' We do so in unconscious obedience to the parameters that we have internalised.

Fodor is not so much concerned by the issue of language production raised in my above example, but by the question of language input. Fodor's argument for the existence of a module dedicated to language input is first that just as we have no choice but to recognise visual input so we have no choice but to recognise the input of languages that we know as meaningful language.

Another reason to view language as processed through a modularised input system relates to the sheer complexity of the task of decoding language. Fodor (1985) argues that human beings will play chess with differing and sometimes prodigious ability. However, the argument that some people have a natural facility for chess would never support the notion that there is a part of the mind that is naturally dedicated to chess playing. Chess is not a natural activity in the way language is held to be. Further, chess involves processes of encoding, projection and representation in which we choose consciously to participate. Yet decoding syntax presents a task that is more complicated than reasoning out the possible positions to which a given chess move may lead. The fact that we understand and produce language means that we do decode syntax. Unlike in chess, we perform this task while being totally unaware of the complexity of the analytical system we have to deploy and without any conscious choice over whether or not to deploy it. Our lack of awareness of what we do when we decode language is similar to the unconscious ease with which we process other sensory data. This lack of awareness argues strongly for a modular system whose most fundamental properties cannot be accessed by other cognitive functions.

The importance of Fodor's views on modularity for students of first language acquisition should now be clear. He places what he perceives as the most important linguistic operations within an input module that is similar to those dedicated to other sensory inputs. Whether they pertain to feeling, sight or language such input systems will have within them structures, which organise the data with which they are provided. Equally these innate modular structures will also have their parameters reset by the input they receive.

For Schwartz (1986, 1987, 1993) modularity suggests a solution to the problem of how older students can both possess acquired and learnt language knowledge at the same time. Holding to Krashen's acquisition/learning distinction, she advances a

hypothesis where language knowledge can be divided into two kinds, with each occupying a different module, encyclopaedic or consciously learnt, and that which is naturally acquired through the involvement of a still available universal grammar. She has allotted each of these types of second language its own place or module within the mind and thus reinforces Krashen's (1985 and 1989) view that learnt language knowledge cannot become acquired knowledge.

In essence, Schwartz (1986, 1987, 1993) is seeking to have modularity both ways. The adult is allowed the capacity both consciously to assemble language knowledge and to retain this alongside that which has been unconsciously filtered through the intact UG of the input system. However, there remain many unanswered questions concerning the relationship of both these language modules to other functions of language and mind.

The first question concerns the way in language is processed, through one module or another. The position of no interface between the two types of module supposes an all or nothing situation where processing is either conscious or unconscious and reflexive. Where processing is unconscious, the Fodorian language module comes into play. Where it is not, one assumes it is somehow routed through or out of the encyclopaedic module.

The immediate problem is that it is difficult to avoid the conclusion that explicit language knowledge can be automatised and its application can become reflexive. I have alluded to Gregg's (1984) argument that he could observe his own automatising of the learnt components of a language. According to McLaughlin's (1987) model, language is like any other complicated skill that is built out of modular or distinct processes. In the earlier stages of language learning these processes are fractured and not fully developed in themselves. Learning entails the amalgamation of the processes, the learner's fuller control over them and their consequent automatising. Such an account would seem to offer a better account for the learner's sense of their integration of explicit routines into an implicit, automatised repertoire. In Schwarz's account, this must occur within the larger encyclopaedic module because according to her argument there is no interface with language module. However, this locus of mind now starts to lose its modular characteristics as it

operates with two quite different types of knowledge, explicit and implicit, as well as with several gradations of knowledge between, representing what is partially automatised, or used successfully on one day but not on another.

The second question is the nature of Fodor's idea of modularity. Fodor describes sensory and language processing systems as modular. He treats linguistic input as being processed differently from other auditory input because linguistic input is intuitively recognised as language, and is hence interpreted in the way that visual data is processed as visual data and scent as scent. The construction of an encyclopaedic module situates modularity in an altogether different part of the mind. Because it is knowledge obtained through conscious learning, encyclopaedic language knowledge must interface with cognitive faculties. It cannot be modular, in other words, but it could be separate from the reflexive processing of language data. However, if it is entirely separate, then we would have to ask how this larger operation of mind can recognise language as language. The answer is that it could only do so through some metacognitive intervention, or the construction of knowledge about the nature of the linguistic input that is being received into the language module. This pre-supposes that the 'dumb' language module is not entirely dumb because it is allowing access to the wider operations of metacognition. If it permits such faculties to work on the language it possesses, one would have to ask why it cannot permit a two-way process where the operations of such faculties are not admitted into its own processes and automatised as a feature of its 'dumb' operations.

Finally, there are larger questions about Fodorian modularity in respect of what is known about the structures of mind and language processing. I will deal these later, however, when I discuss how Cognitivist theories of mind call into question the larger Chomskyan framework.

3.5.3 Metaphor and acquisition: overstressing the uniqueness of the language-learning task

Hitherto, I have tried to underscore the contradictions of SLA/UG theory.

The enquiry was motivated by a concern about an approach to language teaching that would be unapologetic in how it asked students to give conscious consideration to the nature and evolution of language form, albeit in a way that would not normally be considered traditional. I will now question a more basic assumption of acquisition theory, and in so doing point the way to how it might be considered in the light of the somewhat different views of language on which I would like to found my approach.

A problem with language is that in the case of infant acquisition, whether of one or more languages, one is confronted with a process that fails only when there is quite radical pathological, congenital or environmental interference. The near universal success of first language acquisition is the yardstick against which failure is judged. The question that motivates some SLA theory is that of why such success cannot be achieved in later life. Chomskyan theory has a simple answer for this.

The natural mechanisms available to infants are no longer available to the adult. The early result of that assumption was the 'critical age' hypothesis, which will see the language learning facility as going into sharp decline after puberty (Penfield and Roberts 1959). In fact, Long's (1988) critical age study shows a gradual and consistent decline rather than the sudden loss of facility one would anticipate. Such gradualism could sustain the SLA/UG hypothesis in its need to rework Chomskyan theory. There is not the kind of sudden burying and isolation of the UG mechanism that Chomskyan theories about parameter-setting might predict. Rather than seeing a precipitous collapse in the accuracy with which syntax is mastered, one could point to a gradual decline in the ease with which we access what they might perceive as the language input module.

SLA/UG theory also questions the assumption of failure in all post-pubertal language acquisition and thus must reformulate the classic Chomskyan model of parameter setting and steady state. The 'Full transfer/Full Accessibility' model of Schwarz and Sprouse (1994) holds that we start the acquisition process with the same access to UG

that is possessed by the L1 acquirer. In order to sustain this position, it is necessary to place more emphasis upon successful cases of adult acquisition. White and Genesee (1996) for example have identified groups of adult speakers whose attainment is indistinguishable from that of native speakers. The reason given for their achievement is that they have access to the same acquisitive faculties as native speakers. My argument would be that they have engaged in successful learning.

It should also be remembered that these critical age studies tend to focus on error in grammatical structure. This is unsurprising on three counts. First, some SLA theorists are often motivated by a transformational generative view of language. Second, grammatical structures are salient entities that can be measured as right or wrong. We can quantify the production of correct sentences, and generative grammar, in particular, provides a consistent framework for their analysis. Such a framework permits the comparison of one case with another. Third, the focus allows a supportive but unmentioned circularity that is typical of generative arguments. Thus, one can say that acquisition is fundamentally about syntactic structure. Therefore, a flawed reproduction of the same indicates a flawed acquisition.

However, for all we know, the cognitive load related to the acquisition of syntax may not be as great as that required for lexis, lexical phrases, collocation, colligation and idiom, not to mention the linguistic restructuration of primary metaphor maybe much greater. It will be difficult to make conclusive statements about critical age until we start to look at the longitudinal development of a larger linguistic picture.

Additionally, studies that focus on syntactic error take a 'wrong or right' approach to their material. They do not perceive the student as on an approach path to a particular form, perhaps coming closer to it at one moment and veering away at another. Effective teaching and learning is not always indicated by the student 'getting it right' straight off but by the student being guided towards the correct form over time.

In sum, I would like to underscore a point that finds its way into the conscious or unconscious practice of many teachers. A first language furnishes the learner with strategies through which to consider how they are building the second. To render a language learning process conscious, be it in relation to physical movement or mental

processes is to allow that it will have something in common with other learning tasks. Bialystock (1990) does not see a distinction in the way the mind processes linguistic and non-linguistic information. In learning, she postulates a useful distinction between analysed and unanalysed knowledge. Analysis in this sense does not constitute making knowledge explicit or conscious. It constitutes rather the sense in which it is unconsciously (or consciously) analysed as available to other contexts and situations than the one in which it is obtained. Her idea of analysis could even imply the mind's implicit awareness of how knowledge can be generalised beyond the context in which it was reflexively acquired. It is arguable that such an analysis would figure in the recontextualisation of any procedure; whether linguistic or purely cognitive, whether in the domain of sport, craft or other areas of human activity. There is also a sense here of category extension, to which I will return shortly.

Finally, it must be mistaken to say that, because our learning goal has been naturally evolved, the strategies used to reach it should be solely natural and unconscious also. Language provides us with the means to think about language. To deny this is to limit our semiotic capability. A first language allows us an opportunity consciously to represent the meanings of a second. To deny ourselves this semiotic opportunity is to deny ourselves the possibilities that language affords us.

3.5.4 Metaphor and acquisition: the conclusions of metaphor research in cognitive science do not support the generative position on which some of the more consistent positions about SLA are based.

Thus far I have examined the problematic nature of second language acquisition theory in two respects. The first is in relation to the Chomskyan theoretical position on which it is largely based. The second concerns its relation or non-relation to wider issues in learning. I will now re-examine this issue in respect of a metaphor-based view of conceptualisation and of the relationship between language and cognition that I am putting forward.

Gibbs (1994) asserted his intention in taking the 'cognitive' as opposed to the 'generative wager' in respect of acquisition and language. His concern was with

whether one might study language as modular and structurally isolated from the operations of cognition that it seeks to express or should perceive it as inextricably bound up with these and even structured out of them. His position is very much on the cognitive side but his use of the term 'wager' implies that ultimately there is no certain evidence to support either position. However, there are searching questions that can be asked about the wider notion of universal grammar and Chomskyan theory in the light of a cognitivist approach. I intend to raise questions as they emerge from the cognitive and metaphorical view of language structure. It is not my intention to engage in a wider debate about generative theory.

The central issue that a generative grammar poses for a cognitivist concerns the autonomy of syntax in language. Inside this question is the larger one of whether language should be studied as a feature of cognition, that is as a phenomenon that reveals patterns of thoughts that are non-linguistic or whether language should only be studied as language.

A key tenet of Chomskyan linguistics (1959) is that the essence of language resides in a syntax that controls the organisation of a sentence without being affected by the meanings of the words or units in the sentence. However, for the cognitivist, syntax is bound up with a wider construction of meaning and mental representation.

Cognitive linguistics traces the grammaticalisation of elements of language through metaphor-making. Thus we have seen how a future tense can evolve from our sense of moving on a trajectory to a future landmark and from the schema that 'time is space', 'the future is in front and the past behind'. Generative grammarians must ignore the evidence of this process in order to assert that syntax is an isolated and abstract set of algorithms with which we are largely endowed at birth and out of which we compute meaning. Yet not only does the generative position find it difficult to account for this evolutionary or diachronic evidence about the role of metaphor in language change, but there are other examples of how meaning (semantics) governs syntax.

Lakoff and Johnson (1999: 488-492) recount how the classic 'co-ordinate structure constraint' is formulated in generative grammar as purely syntactic but will in fact

succumb to semantic influence. Their argument is involved but is worth citing for the very important point that it makes.

According to transformational grammar more complicated structures are built up from simple clauses by what is called movement. A co-ordinate structure is one that combines two clauses as in 'John ate something and Bill drank something.' If we were to treat one of these clauses as a separate sentence and turn it into the question: 'what did John eat?', transformational grammar would tell us that we would do this by changing 'something' to 'what' and moving it to the end of the sentence. We would represent the movement with an underlined blank space to mark where the 'what' had been moved from as in 124:

124 What did John eat _____?

However, if we do this when 124 is a clause that is part of a co-ordinate structure, then we will produce an ungrammatical sentence as in 125:

125 What did John eat _____ and Bill drank something?

The fact that this creates an ungrammatical sentence gives transformational grammarians the co-ordinate structure constraint: 'no constituent can be moved out of a co-ordinate structure unless it is moved out of all conjuncts. (Ross 1967 and 1985) (Cited in Lakoff and Johnson 1999)'.

Unfortunately there are many exceptions to this constraint. Among several that Lakoff and Johnson (1999) cite are 126 and 127:

126 What did John go to the store and buy _____ ? (Ross 1967)

127 How much can you drink _____ and still stay sober? (Goldsmith 1985)

Lakoff 1986 further showed several counterexamples in multiple conjunct sentences involving second, third and fifth conjuncts. Such evidence makes clear that there is no co-ordinate structure constraint in the sense of a mechanism that syntax has been imposed over lexis and meaning. Lakoff's (1986) solution was to see the cases

predicted by the original constraint as involving what he calls ‘semantic parallelism’. By semantic parallelism he means cases where the conjuncts dealing with semantic fields can be considered parallel in the sense of dealing with contextually related topics. Thus 128, below, demands the constraint because the semantic fields of ‘food’ and ‘drink’ intertwine through the shared context of sustenance. Equally, parallelism could imply something antonymic as in 129, below. When there is no possibility of a shared context as in 130, and thus no parallelism, then, if the constraint operates, it results in a meaning that is too bizarre to be acceptable. One cannot generally eat a musical instrument, unless we were to move towards the register of children’s jokes and riddles, responding with ‘a chocolate cello’ or some such.

- 128 What did John eat ____ and Bill drink (Lakoff and Johnson 1999)
- 129 What did John build ____ and Bill destroy
- 130 What did John eat ____ and Bill tune (Lakoff and Johnson 1999)
- 131 What did John go to the store, buy _____ put _____ in his car, drive home
and unload (Lakoff and Johnson 1999)
- 132 What did John eat hot dogs and Bill drink

By contrast, ‘the multiple conjunct cases that violate all-or-nothing movement are natural sequences of events in which VPs (verb phrases) with no movement either set a scene or change a scene’, as in 131, above (Lakoff and Johnson 1999: 492).

Both of these violations show how issues of meaning can affect semantic structure. Clearly, generative grammarians have had to take these and countless other instances on board. For example they can remove 132, above, from the realm of syntax and say that it is pragmatically unacceptable (ibid: 494). But this forces Chomskyan linguistics towards a position where one can say simply that syntax governs only those structures which are immune to the type of interference from context and meaning that is illustrated above. This is an unacceptable circularity. We are saying that ‘syntax is syntax if it works in the way we think syntax ought to work and if it does not then it must be something else’. Such a state of affairs renders Chomskyan claims about syntax unfalsifiable. Any instance of contrary evidence is treated as an exception and put outside the analytic frame in order to maintain the integrity of the basic idea (ibid).

By contrast, the emerging cognitive picture is of a syntax that is governed by issues of meaning and a grammar that has evolved diachronically from an extension of the meanings of words rooted in mind-world interactions towards the more abstract specification of meaning relationships.

Second language teachers and theorists of acquisition should consider two points:

- 1) Grammar is a property of the meanings that language users wish to express. There is no stable concept of grammar, which can be constructed as a structure of mind towards which they can proceed in a measured and predictable fashion. Grammatical performance cannot of itself constitute a measure of progress through language.
- 2) The separation between grammatical and lexical meaning is less clear than they might have imagined. The one has emerged from the other. Grammar does not arrange lexis but may be better perceived as a property of it. I will examine the pedagogical consequences of this in the next chapter (section 4.7).

3.5.5 Metaphor and acquisition: the lack of neurological support for an acquisition/learning distinction that is based on modular structures of mind.

A second and related point evolves from how Chomskyan syntax must be viewed as autonomous or separate from other mental functions. Edelman (1992) has pointed out that there is no neural network in the brain that does not have neural input from other parts of the brain (cited Lakoff and Johnson 1999: 480). Fodor (1985) may answer this question with his view that the language module would not exist in complete isolation from other functions of mind. The language module's basic structures would be integral to it and thus isolated from neural input in a way that must hold true for other sensory systems. The module is thus hypothesised as allowing a two-way traffic with the other features of cognition while retaining structures that are integral to itself.

However, the picture of cerebral activity in relation to language that is now emerging is scarcely consistent with the type of modularity that the Chomskyan position assumes. Traditional brain damage studies, such as those of Broca (1865) and Wernicke (1874) supported the idea of language modularity by associating language impairment with the two brain areas that now bear their names. Broca's area in particular had been associated with syntactic and grammatical problems, though initially more in respect of reproduction and thus of motor control (Deacon 1997: 284).

Yet a problem with brain lesion studies is that they are only associative (ibid). If a language function is impaired after damage to a given area, that area is implicated in the performance of that function. Imagine that after the lights went out in a house and despite having no knowledge of electricity one finally traced the problem to a faulty fuse box. One might then implicate the fuse box in the production of electricity. Clearly, it would be wrong to do so.

Additionally, we may need to 'stop conceiving of the localisation of brain function' (ibid: 285) as if sight or language were simply products of the same. Brain functions may be organised according to an entirely different logic from language functions. Language could thus be perceived as selecting brain areas that suit its particular needs, yet language-associated areas, whether Wernicke's or Broca's, do not show any anatomical distinctiveness. Their lack of distinctiveness casts doubt on Chomsky's (1985) contention that finally a language competence must have biological existence, unless by biological we mean only the connections that are formed in a standard neurological structure, as opposed to those that are performed as the universal structures that arrange input. Furthermore, one view now is that areas associated with language should be perceived more as 'bottlenecks' in the neurological activity that constitutes language and less as the organs that bear final responsibility for it (Deacon 1998).

Penfield and Roberts (1959) initiated the move of brain function localisation studies away from a dependence upon negative evidence or damage. Penfield discovered that he 'could selectively interfere with different language tests that he gave his patients

when he 'passed low level electric current into the cortex near the presumed language areas' of the brain's left hemisphere (Deacon 1998: 289). Penfield's studies do possess some broad consistency with those based upon negative evidence. But overall, it is noteworthy that he found a symmetry of posterior and frontal functions which indicates a wider distribution (ibid). By this one means that the language functions activate brain sites at the front of the cortex as brain lesion studies might predict. However, interestingly, these functions are mirrored by similar activity at the back. Technological advances have since permitted more detailed studies. Ojeman (1953 and 1979) concludes that although there is some consistency between individuals, this is far from absolute. The brain does not suggest the rigid subdivision of functions of other organs.

The localisation of language function is not open to doubt. However, there is no evidence that such localisation entails a neurological structure that is unique to a given linguistic function. It is increasingly difficult to postulate that language has a structure which is reflected in a cerebral architecture unique to the areas where it is located. Such a difficulty raises serious questions about an innate universal grammar to which all minds have access. These questions cast further doubt on the perception that first or second language acquisition occurs when linguistic input resets the parameters of that universal grammar.

Although specifiable, language localities do show some variation. Such variation occurs in regions whose neural architecture is common to the rest of the brain. Individual variations in locality and a common neural structure do not support the picture of a language module as a physical entity possessing capabilities that are unique to it. Even less plausible is the mind's exploitation of that common architecture in order to separate the operations of language according to the nature of the linguistic input received.

3.6 Metaphor in the learning process: conclusions

I have discussed how the requirements of quantitative, cross-sectional methods of study may distort the nature of the language that is under consideration.

Syntactic structure may furnish useful criteria on which to base cross-linguistic comparisons about a natural order of the acquisition of syntax. Nonetheless, such criteria will say nothing about a sentence such as 133, below, which shows a mastery of a quite complex, albeit unmarked syntax, but is incorrect for reasons that may in fact be more revealing as to how older subjects learn and acquire language.

133 A coat is an object which we support to disturb the wind (author's data)

First, this sentence shows a misperception of the 'object' category in English. According to a system of logical semantics, a coat is indubitably an object. Yet we should consider Lakoff's 1987 notion of radial category and Rosch's (1975 and 1978) perception that category membership is not determined by a pre-defined set of features. To me an object in English would connote something solid and self-supporting, perhaps, prototypically, a stone, not a composite of different things such as buttons, sleeves, collar and lining. The first inaccuracy, therefore, is that 'coat' is too far on the periphery of the object category. From this another entailment ensues. The flexible, non-object nature of a coat suggests that it is not supported by its wearer but hangs from them. We can support objects or their central category members but not coats. 'Disturb' is also problematic, though like the entire sentence it is almost accurate. Finally, coats stop the penetration of the wind. 'Disturb' connotes an actor. To me, 'coats' in English, represent a category that is too passive to intrude upon the wind's activity. It is interesting also that the prototypical function relates to wind and not to the more general concern about cold, tempting a supposition about a cultural effect, perhaps relating back to a climate where it is winds that disturb the more habitual warmth.

In order to make this kind of analysis, we need a strong sense of the image-schematic origins of abstract thought and even of the cultural construction of meaning that is operating through them. Without this, the likelihood is that the error may be corrected but left unexplained.

A complementary approach to this error is from the perspective of over-generalisation. I have already discussed how a child's error, using the shape of the 'sun' to describe the moon, or 'strangle' to describe the pressure of a hand on their wrist can constitute an instance of catachresis, and process of mapping or metaphor making as it is integrated into language development (section 2.6.8). In sentence 133, above, I can find similar acts of linguistic creativity by an adult in relation to an L2. I would suspect therefore that this deployment of a metaphor-making faculty does show, therefore, a link between the intuitive processes of L1 acquisition and those used in the L2, in respect of the wider operations of cognition. This capacity for generalisation may also be one that we operate with some degree of consciousness as when we try out an expression whose meaning is deduced from one context in another that we consider analogous. The success of this experimentation relates to how far that analogy accords with inherent structures or store of similarity judgements that constitute the L2 or to how easily it can be treated as an entailment of the same. In the instance of 132, above, 'coats' are marginal objects and thus cannot entail a structure that is capable of support, so the expression fails despite the creativity that it displays.

Such a type of analysis also has the merit of linking the type of error being made, not simply to the patterns of mind, or schemata, from which it has emerged, but to the underlying process through which these are being reformed in order to cope with the TL. As has been implied, it is not new for SLA research to take this type of extra-linguistic approach and allow for the larger role of cognition. Ellis (1990: 184), for example, asserts 'the need to distinguish between knowledge and control of language in order to take account of both linguistic and cognitive factors'. 'Cognitive learning theory can account for how learners obtain control' of the L2, for example (ibid). However, such a view confines cognition to automative issues of 'control' and disengages it from the explanation of what is controlled. By this I mean that there is still the divided process of a language as a mental construct or as a social semiotic, and a learning or acquisitive mind which is seeking to automatise its control of that language. There is no wider concern for how the underlying structures of that language may in some sense provide an insight into the processes that are seeking mastery of them. There is no understanding of how even grammar and syntax are seen

as products of the way in which the mind processes the interactions of its embodied existence with the world.

Ellis implicitly abandons a rigidly modular mind, and allows that there is interaction between consciously acquired knowledge and its consequent automatised. We would argue that once this step has been taken then we have to perceive language knowledge itself, not as a purely linguistic construct but as reflecting the wider operations of cognition. Though closed in its principled manipulation of these operations, language is open, in its responsiveness to change in the nature of the interactivity it represents. If this is the case, the mechanisms through which we mentally control a language's representation of meaning cannot be entirely dissociated from those with which we create that representation.

An awareness of the 'poetics' of ordinary language (Gibbs 1994), then, is not an awareness of our having something more to teach. It is not an extension of the knowledge side of Ellis's (1990) equation. The awareness of metaphor can offer students a path into the conceptual core of a language, bringing a new understanding of how it works while linking that understanding to a re-appraisal of the processes of learning and acquisition.

In order to summarise how our argument fits together, I will first remind the reader of the basis of our understanding of the role of metaphor:

- 1) Metaphor permits the conceptualisation of abstract thought. Metaphor therefore underlies and makes possible abstract expression in language, whether this be grammatical or lexical. This has three broad consequences:
 - 1.1) metaphor is a key to the diachronic analysis of language, revealing how a language has come to take the form that it has

1.2) metaphor affords a conceptual home or a category to what is new and strange.

It is therefore essential to the process through which we represent new knowledge to ourselves and establish conceptual ownership over it

1.3) metaphor is a linguistic manifestation of a cognitive process. As such it is a means to study the wider cognitive basis of language. An understanding of metaphor is an understanding of how the structures of language and thought inter-relate. We may therefore falsify the nature of language when we study it as an autonomous abstract structure.

2) Metaphor cannot be separated from 'affect'. The affective power of metaphor is a reason for its use in the arts. I have speculated that this power may root in:

2.1) the satisfaction of giving unknown phenomena a conceptual home, of affording the strange and the potentially hazardous the security of a taxonomic shelter

2.2) the fact that this continuing offer of a conceptual identity is bought at the expense of secure sign-meaning relationships and of the category structures on which they depend. Metaphor posits meanings being something other than themselves and therefore suggests a conceptual leakage where the model of a concept evokes other associated models. Metaphor therefore initiates a kind of conceptual networking, setting us free to travel across the sets of our own associations involving finally the individualisation of experience from which part of our identity is constructed.

I will now summarise the conclusions that language teachers can draw from the above points.

3.6.1 Metaphor in the learning process: a key to the diachronic analysis of language.

Metaphor offers students a way to understand why a language has taken the form that it has. It means that language is presented less as a baffling and randomly shaped construction and more as the systematic extension of a core of common concepts. Some of these extensions can be rationalised through the nature of the culture in which a language is embedded and to which it gives expression.

3.6.2 Metaphor in the learning process: metaphor affords a conceptual home to what is new and strange.

Because metaphor is a means through which the mind conceptualises what it has not known and cannot see, metaphor is a means through which teachers can present new knowledge about language and of language. The presentation of language as a metaphorical construct is not only true to the nature of language, it makes language friendly to the nature of learning.

New conscious and unconscious pedagogical strategies suggest themselves. Current conscious and unconscious strategies are reinforced. For example, students may be unaware of the metaphorical nature of a lesson where the teacher elicits the past simple through the gesture of pointing behind them or sets out the future as a point

they walk towards. However, teachers can make students aware of the present perfect as a structure of possession of the past, as a metaphor of holding what has just occurred in the hand.

3.6.3 Metaphor in the learning process: an understanding of metaphor is an understanding of how the structures of language and thought inter-relate.

A study of metaphor warns against simplistic dichotomies between notions of conscious learning and unconscious acquisition. It supposes that acquisition cannot be constructed as a linguistic process because language itself is not an isolated construct subject to regulatory principles that are isolated from the wider operations of cognition. Functions of mind such as language are evidently localised but the structures that they borrow are common to the whole and testify to the inter-relatedness of mental operations. This argues for multi-sensory classroom approaches, locating language within the other perceptual operations to which it gives expression. It also argues for an understanding of method as able to carry students between a conscious construction of language form and unconscious phases of self-expression and response.

3.6.4 Metaphor in the learning process: giving unknown phenomena a conceptual home

Metaphor is an efficient way through which teachers can help students establish conceptual ownership over knowledge. It is efficient because it is the way in which we conceptualise new ideas. Metaphor can help students to vest new knowledge with the emotional significance of something that has been found by them and which is more significant to them.

3.6.5 Metaphor in the learning process: metaphor initiates conceptual networking setting us free to travel across the sets of our own associations.

The suggestion is that the classroom is set up as a zone of conceptual networking where students should hunt down the topics that are meaningful to them, giving an affective underpinning to their intellectual construction of language knowledge. They should discover a coincidence between the mechanisms through which meaning is built in language and those through which the resultant construct is acquired. Because that coincidence lies in the metaphor-based nature of language and learning, its discovery may also connect language knowledge to zones of affect with which metaphor will put the learner in contact. For the ELT specialist, metaphor enfolds itself within the three points of meaning construction/constructed meaning, learning and affect. It can thus conjoin the three aspects of successful language learning, as shown in figure 5 below.

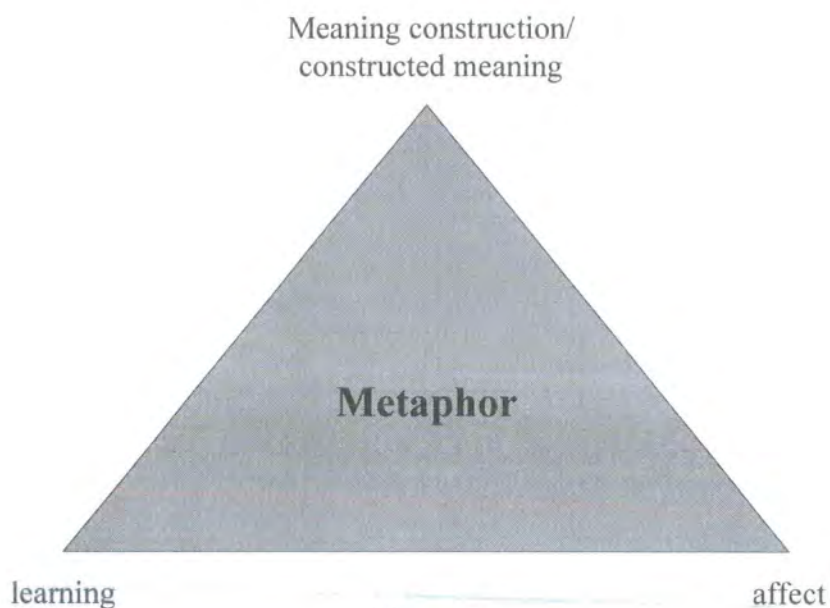


Figure 5

By adopting the role of participant observer, I now examine how this conception can translate into classroom practice and how the resultant procedures may require modification when they confront the realities of the adult language classroom.

4 Pedagogical Explorations: Teaching A Learner Friendly Language

4.1 Pedagogical explorations: introduction

In the last chapter, I looked at the different ways in which the metaphorical construction of language and of learning can be linked together. I argued that this linkage can offer a new perspective on why some current teaching methods succeed and on how we should construct other ways forward. The key point was that our conception of metaphor can vest learning with the emotional significance that is essential to learning's success while providing a key to the structures that underlie language.

A still broader suggestion is that we can now think less about the relevance of hypothetical contexts to a learning experience and more about how the experience can be 'tuned' to the nature of the cognition out of which a language has been constructed and through which it is learnt.

In this section, I want to make some clearer formulations about what this means at a classroom level. I will therefore examine the kinds of technique that put these broader ideas into practice. I will do this, first, by describing the research methods basis from which my observations proceed. Second, I will take various classroom procedures in turn. I will outline each in relation to the broader theory that I have put forward, then recount my own or another teacher's experience of these teaching ideas. I will next draw conclusions as to how the idea can be developed after the first act of experimentation. Third and last, I will turn to how a sense of conceptual metaphor can affect the analysis of student errors. I will look at some examples of student errors gathered from my own data and show how these can be explained and corrected through what I call an image-schematic approach.

First, I should make clear that this thesis is very much an exercise in theory formulation. In line with any qualitative procedure (e.g. Silverman 1985 and 1993), my objective is not to treat the instances described as examples from which it is safe to generalise about how language students should be taught or about how they will respond to a given technique. My objective is to recount what occurred when certain techniques were tried out with specific classes, then to ask whether they can contribute as an exemplification of how this approach might be realised. In this, I wish to take on the role that Richards and Lockart (1996: 2) characterise as that of a reflective teacher. Accordingly, I will recall the nature of the 'interactions that occur in a classroom and the exploitation of the learning opportunities that these offer, the form that a lesson takes, as well as the quality of opportunity a lesson provides for 'authentic language use' (ibid: 2). Such recollections are not making a statement about the effectiveness of the method that is proposed. They recollect first how I set out to search for this approach in the classroom and then attempted to implement the clearer construct that emerged. They offer the reader a reflective discussion upon the narrative of that implementation and the perceived responses of a given group of students to it.

Though all these episodes contribute to the exemplification of my approach, the nature of that contribution varies according to when they occurred in relation to the formulation of my thoughts about the topic. Broadly this variation occurs in three ways:

- 1) They contribute because they represent an intuitive response to the sense that metaphor was important, encouraging the much later construction of the theory through the impact that they had. They also form part of a larger category of pedagogical activity which makes an intuitive use of metaphor and which this thesis is trying to provide with a credible post-rationalisation.
- 2) They form part of the conscious search for a pedagogical response to theories of metaphor and language that have been discussed here and are thus the material of which it evolved.

- 3) They are generated by a clearer sense of how this approach should be constructed and stand as a narrative of its conscious exemplification

The activity, 'Metaphors Looking for a Meaning' (section 4.4.3) took place too early to contribute to any consistent act of theory construction. It constituted an intuitive response to what I then felt to be an important area. . My account is based upon notes taken at the time. One might also describe such an example as helping to form the perspective that Geertz (1983) termed experience 'distant'. By this, I mean the broader rationalisation of events that can occur after one can transcend the detail that may clutter a close observation of a scene. Now, it can contribute to this thesis both as a description of the unfocused experimentation from which it has emerged and as a classroom episode whose impact called for the more substantive rationalisation that it is putting forward. In this category, I should also include, 'Layering', (4.4.2), though the background, here, is somewhat different. This procedure was devised over eighteen years ago as part of an unpublished collection dedicated to the use of paintings in the language class. I revived it in 1998 because my exploration of the role of metaphor in constructing affective approaches to language teaching merited my giving it further thought. The revival of the idea within the framework of this thesis meant that its narrative is not a reflection upon a remote experience, but upon a tape of a class that was designed to further my research.

The activity 4.4.1 falls into the second category. It represents an early, intuitive response to my interest in looking for a pedagogical direction that would incorporate a sense of metaphor. The shift in classroom direction from metaphor to metonymy was an unintended consequence of this view. Activity 4.6.1, 'When arguments are not ghosts', fits more easily into the cognitive framework that is being suggested here. Yet, it is a reflection upon a moment of classroom creativity that although it took place within the framework of my research into metaphor theory should be seen more as contributing to the eventual construction that illustrative of it.

The other activities, 4.4.4, 4.6.2, 4.6.3, 4.6.4, 4.7 and 4.8, represent a clearer response to the framework that is being put forward. With the exception of 4.4.4, which describes a loser response to a view of category construction, these activities try to

evolve teaching procedures for a given item of lexis or grammar from the metaphors out of which they have been constructed.

Table 1, at the end of this section, shows when the activity described was attempted, where and with whom. It also details whether the account was based upon the analysis of a tape-recording of a class or upon notes made at the time. In keeping with a thesis whose objective is to formulate a cognition-based view of language teaching, my greater interest throughout is finding what Hammersley (1990) calls a 'competence model' of classroom interaction. A competence model describes peoples' feelings, motivations rather than simply classroom behaviour. In view of the relationship between language, affect and cognition that is being put forward, I would also like to see such classroom interactions as inseparable from the wider operations of cognition.

Where a tape recording was used, I would in replaying note down the different stages of the lesson in order to understand how it had developed in a manner that was different to that which had been planned. I then extrapolated the phases of the lesson that best revealed the direction of this classroom narrative and noted supporting comments and exchanges. All classes, however remote or recent, construct themselves as episodes in an unfolding narrative whose recollection is an acknowledged aim of qualitative research (e.g. Silverman 1985 and 1993). The narrative makes clear 'patterns of events', then separates these from both the researchers understanding and the analytical framework in which this is put forward (Banner et al. 1994: 45).

One lesson was taught by a colleague, using the idea that I gave them. In this case, I recount the comments that they made on what occurred when I debriefed them afterwards. I also used a recording that the teacher made in the manner outlined above. I have also made some passing references to other lessons that I did not teach, using the comments and accounts that teachers offered me. However, I taught the majority of the episodes discussed, myself. In this I have drawn on a common principle of ethnographic research and cast myself as a participant observer.

Participant observation is a response to 'the incremental and iterative nature of social life', entailing as it does, the involvement of the observer in its unfolding processes

(Rock 1979). A detached observer cannot construct a competence model of classroom interaction because it is about more than the superficial description of behaviour. The model requires the entrance of the observer into the process, either as teacher or learner so that they experience, then reveal, their own and others' engagement in episodes that are finally about the underlying cognitive processes that result in or evolve out of the interactions that occur.

The observer's participation entails an eschewal of objectivism. As Blumer (1972) has observed of other types of social change (cited May 1997), the introduction of new classroom procedures will create a narrative that is interpretative. Interpretation is of course a construction of the observer's subjectivity, necessitating that their biography cannot be excluded from the research process (Hammersley and Atkinson 1995). A core issue is also the analysis of that subjectivity.

Here, the analysis of subjectivity involves the need to understand the commitment of the participant, i.e. myself, to the ideas that are being put forward, and thus to the salvage and recycling of their essential principles, even when their failure may make them seem fit for rejection. Combining the roles of participating observation and the authorship of the classroom procedure that is being observed may also have allowed me a greater freedom with the ideas, and more room for classroom creativity. This freedom resides in how I do not carry theories into class that must be tested then rejected or accepted, but rather bring models that must be adapted to the circumstances that arise. My objective is also to chart this process of adaptation and development, rejecting the ethos implicit in the recipe or resource book where teachers are like puppets being manipulated by the remote author's instructional strings. I hope to use the more incisive but more tolerant construction of a classroom narrative to show how core ideas are developed, stretched to new forms or rejected by a given group of students.

In one case, the nature of the data differs because another teacher is working with my ideas. An issue that now arises is how the teacher interprets the ideas and the fact that the class is responding to that interpretation. What occurs has to be treated as requiring a sense of two levels of subjectivity, that of myself, the researcher and that of the teacher.

Finally, I should emphasise that, while seeking justification in some of the precepts of qualitative research, this account of classroom episodes is not setting itself up as a full-scale research project, involving the record of a full classroom ethnography on the lines of Allwright (1988) or Hammersley (1990). The aim here is to show how one can teach towards the picture of the metaphor-making mind and the metaphor-based language that I have tried to describe. Accordingly, my interest is not in description of a given group of students and the unfolding nature of their interactions but in the development of techniques that fit different language levels and different learning objectives. This has set up a need to try out ideas with a wide cross-section of learners and has mitigated against any close study of a particular group. The instances that I recount exemplify how one might apply the approach that is being suggested. However, they cannot attest to the effectiveness of that approach in a wider sense. I have made, in earlier chapters, a deductive case for how we should approach language teaching from a new direction. My interest, now, is in setting out some paths towards the implementation of this scheme. These are paths that others will depart from or refashion according to the circumstances with which they are faced. In the table overleaf I have set out the details of where and when these approaches were tried out, who taught them, the composition of the class and the type of record used.

Table 1

<i>Activity</i>	<i>Section Reference</i>	<i>Date taught</i>	<i>Teacher</i>	<i>Location</i>	<i>Composition of the class</i>	<i>Record</i>
Describing things as other than themselves	4.4.1	25/02/1997	Author	University of Durham	6 students: East Asia and Middle East	Tape
Layering	4.4.2	17/02/1998	Author	University of Durham	10 students: Europe, East Asia and Middle East	Tape
Metaphors looking for a meaning	4.4.3	Approximate date: 04-06/91	Author	University of Marien N'gouabi, Brazzaville, Congo	30-40 students: Africa	Notes
Exploring category construction and metaphor	4.4.4	24/02/1998	Author	University of Durham	5 students: Europe, East Asia and Middle East	Tape
The lexico-grammar of metaphorical expression	4.5.1	6/05/99	Author	University of Durham	6-7 students: Europe, East Asia and Middle East	Tape
When arguments are not ghosts	4.6.1	9/02/98	Author	University of Durham	14 students: Europe, East Asia and Middle East	Notes
Cause and effect arguments	4.6.2	14/11/99	Author	University of Durham	9 students: East Asia and Middle East	Tape
Cause and effect paths	4.6.3	30/11/99	Author	University of Durham	9 students: Europe, East Asia and Middle East	Tape
Theoretical and empirical argument	4.6.4	21/01/00	Author	University of Durham	8 students: East Asia and Middle East	Tape
The present perfect	4.7	10/11/98	Deborah Morgan	University of Durham	10-12 students: European, East Asia and Middle East	Tape
Prepositions and particles	4.8	09/03/99	Author	University of Durham	10-12 students: European, East Asia and Middle East	Notes

4.3 Key features of a metaphor-based approach

In the episodes that follow, I will look at how we can implement the followings aspects the suggested approach:

- 1) Using metaphor in language, exploiting the relationship between metaphor and affect.
- 2) Introducing students to how English sometimes marks simile and metaphor
- 3) Introducing students to the role of metaphor in the construction of lexis and the subsidiary issue of constructing written arguments in English.
- 4) Introducing grammar through its metaphorical construction
- 5) Image schematic approaches to error analysis

The first very general objective of using metaphor as a linguistic construct and exploiting its evocative and emotional force relates to its role as a 'live', identifiable construct that is able to stimulate students' discourse. My suggestion (section 3.4.5) was that this feature of metaphor may root in the paradoxical quality of disrupting the boundaries between categories in order to trigger a conceptual search while finding and nailing down new concepts. In section 4.4, below, I explore the classroom applications of this argument.

The second area, examined in section 4.5, below, involves the language of simile and metaphor. Its theme runs counter to some of the ideas expressed in other chapters. It starts from the assumption that metaphor is not so much a cognitive process as an identifiable use of language sometimes supported by distinct forms. A grasp of these forms allows students the creativity that is traditionally associated with the use of metaphor. It is therefore an important feature of language knowledge. Interestingly, however, the effect of metaphor use, subverts the emphasis upon the language through which it is expressed and carries the topic back towards the zone of affect.

Each of these first two topics has the common feature of using metaphor, as an identifiable device in language, to stimulate classroom discourse. However, in section 4.6, I move towards the more central focus of this thesis, which is the role of

metaphor in the conceptualisation of meaning. I examine the possibilities of using metaphor to help students construct lexical meaning.

While remaining within the broader area of lexical meaning, the focus, in section 4.6.2, is on the lexical expression of logical argument. I explore the pedagogical implications of the role of metaphor in logic's underlying conceptualisations.

Even if they are not logically consistent, successful arguments may clothe themselves in logical language. Their texts comment on their own logicity. They do this overtly, as in the use of connectors, (e.g. however, thus, equally) or implicitly in the structure of their sentences, as in the use of a grammatical metaphor (speaking leads to calm). The language of logical discourse is therefore linked to the text's commentary upon itself as a purveyor of reason. Argument, therefore, invokes certain uses of metatext. Metatext in logical argument also comments on the text's organisation of itself, that is to say upon its functional arrangement or 'move structure' (Swales 1990). In English academic discourse, for example, a move from general statement to supporting examples, or from evidence to a more general conclusion is in accordance with the principles of logical order to which the text may itself try to draw attention. The text may mark this shift with phrases such as 'for example' or 'Thus, we can see'.

The language of logic, of metatext and the organisation of text as argument are all features that inter-relate closely. Their degree of abstraction, their consequent metaphorical nature and the difficulty they often cause both MT and FL students also means that they proffer a promising area in which to examine how to help students to master them through the conceptualisations from which they have evolved. I explore this area in 4.6.6, also under the broader heading of metaphor and lexis.

In section 4.7, I look beyond the use of metaphor as a device to explain grammar and to illustrate its context of use. I consider the more innovative possibility of placing some grammatical constructions back in the propositional schemata from which they may have emerged. The task is simplest when looking at the issue of prepositions and particle verbs in English. I also attempt a more ambitious look at how we could present some facets of the English tense system.

The last section, (4.8), bases its argument not on my accounts of teaching but on an examination of some of the errors made by my students. In this, I develop a theme touched upon in my conclusions to the last chapter (see section 3.6). Such a development involves an attempt to see how we can analyse errors as a failure to grasp the schemata upon which the required area of language is based. I suggest that certain errors are conceptual and that correction strategies can be constructed accordingly.

These five areas for study are all furnished by the view of metaphor I have put forward. They show how we can exploit metaphor as a crucial agent in language change and the conceptualisations on which it is built. They indicate how we can use metaphor as a live element, or trope, to connect language to the emotions that motivate its use and make it more memorable. They furnish examples of how we can re-locate abstract language in its conceptual metaphors from which it has emerged in order to enhance student understanding of how it should be used and why it has taken the form that it has.

Much of the text that follows has a section devoted to a given procedure. I have divided each such section into three or four sub-units. The first will provide an introduction that will situate the procedure within the framework of this thesis. The second will provide a summary of the aim of the lesson and the procedure used. The third will be a narrative of what occurred. The last will be a discussion about what occurred and the conclusions that can be drawn. In this last discussion I may also show how an idea was carried forward and integrated into further learning activities. Space considerations mitigate against a full account of all my experimentation in this area. However, some ideas that have not received the fuller treatment set out above, have at least been alluded to in a discussion.

4.4 Metaphor and affect

The use of metaphor posits a certain procedural freedom, perhaps imposing its own analogical structure upon the class. Therefore it is inevitable that these activities go beyond their specific learning objectives. Both the language issues that the activities evoke and their capacity to evoke them remain an issue in what follows, even if a secondary one.

I begin in an area that has been well-exploited in humanistic teaching, that of memories (e.g. Moskowitz 1978 and Dufeu 1994) and will look at the capacity of metaphor to evoke them. I then move forward to the use of metaphor in the expression of feeling and emotion in a technique called 'layering'. Next, I suggest how metaphor in literature can be used to make a wider emotional impact upon students and hence a broader evocation of thought requiring expression in language. The last activity of this section looks at the area of categories and prototypes when students are asked to describe prototype such as a particular 'house' which is evoked by a given category such as a 'building'.

4.4.1 Metaphor and affect: describing things as other than themselves

4.4.1.1 Describing things as other than themselves: introduction

Affective and humanistic teachers have long tried to induce states of relaxation among their students in order to reduce their inhibitions and find childhood memories which because they compel expression may reduce the anxieties engendered by an unfamiliar language. The earlier interest in these techniques resulted in the humanistic encounters of Moskowitz (1978) and the Suggestopaedia of Lozanov (1978). As was clearly stated by Lozanov (1978), such techniques still originate in a behaviourist concern for effective habit formation. In this technique, I tried to induce a state of relaxation in order to evoke memories that would foster linguistic creativity through metaphor formation.

The exercise begins to engage students in a more active extension of word meanings by asking them to consider a text that showed how this process has contributed to the

development of language. Another procedure is to challenge students' creativity in a more open manner by asking them to think metaphorically around a particular topic. Such procedures can also involve students in an exploration of the grammatical structures through which live metaphors and similes are made. This type of activity may also be useful with students whose language learning objective may also be an appreciation of literature.

The encouragement of a more metaphorical expression in a target language has two features. One is a grasp of the structures through which live metaphors are expressed and another is a readiness to map concepts onto one another by finding new terms to describe familiar things.

This coinage of metaphors, whether they are truly original or not, is part of the successful manipulation of a language. To encourage this process may also be to encourage student creativity and their sense of the margins that a language imposes upon this. Using a language in its fullest sense implies an individual learner finding within it the resources to make it serve their own expressive needs. They should be able to express experience as unique to them but as comprehensible to all.

Clearly, metaphor formation must be the basis of any activity that has as its objective the creative language use implied here. A straightforward way to achieve this may be through eliciting descriptions in which the students have attained some emotional engagement. With adults, or even adolescents, memories of childhood are a rich vein to mine. This lesson type will be very familiar to teachers who have found that childhood or memory is a useful way to evoke language.

4.4.1.2 Describing things as other than themselves: outline

Aim: to use metaphor in order to make an affective response to a scene

Procedure:

- 1) Students remember a scene from their childhood with their eyes shut, dwelling on all that is evocative about it; how it sounded and how it smelt..
- 2) One student describes the scene. The teacher tries to search for descriptive comparisons (metaphors) between that experience and others.
- 3) Another student starts to elaborate upon the scene the first has started to describe. Others are encouraged to join in as if building a collective memory.

4.4.1.3 Metaphors and Memories: describing things as other than themselves: classroom narrative

To begin, I asked students to close their eyes and to find one of their earliest memories. I prompted them with questions about the sound the memory made and how the scene smelt. After a few minutes, I asked one student to describe the scene. Their description was quite bland:

Student: I was walking with my mother. There was a path. The path was very long and I was tired. I wanted to go into my mother's back.

I drew a box on the board with a figure going inside it while putting another leaning against the outside. I wrote underneath the box: 'Into or onto?' and obtained 'onto my mother's back'.

There was then an exchange about how in the student's country at that time a mother would carry a child in a sling on the back. Therefore using 'go into' was not so much a misunderstanding of a preposition as a literal attempt to convey a cultural practice. This was an interesting instance of a cultural impact upon the image schema out of

which a language has been constructed. The 'back' was being schematised as an extended vehicle for the child.

Next, I asked: 'What was the path like?' The student hesitated before replying: 'There was a wood'. And it became clear that the insertion of speech figures into this description was not entirely appropriate for them. I asked the rest of the class to pause and to try to visualise the scene with the wood and to complete it in their imaginations. I then turned to another student and asked them to elaborate upon the scene. They elaborated that the sun had just set. They further embellished the tiredness of the child, stating that it was intensified by anxieties about whether they would get home before dark. There were sounds in the wood and the teacher diverted the lesson towards the lexis needed to describe sounds. The air of concentration in the class intensified. Seated in a 'horseshoe, they hunched forward as if focusing upon the some central point from which I had been careful to withdraw. Another student took the scene forward, but this time made a quite graphic insertion of a metaphor, using an *it-was-as-if* structure that had been taught on another occasion.

Student: It was as if I was alone in a, a wild place

Teacher The jungle?

But another student objected that the child was with her mother and would not be left alone. The originator of the scene agreed but acknowledged that such fears may often worry children. I tried to explain how loneliness could be a metaphor for a feeling as well as the description of the child's actual state. The class then decided to modify the figure and, after I had given some language input, said that it was one of 'fear of being alone in a wild place' and that this further increased their hope that the mother would pick them up and take them safely home. The discussion, with its unusually even participation, broke up that strong sense of concentration upon a central idea. I therefore moved the lesson onto the next stage and asked the class to listen with eyes closed while I ad-libbed an embellished account of the class's collective memory.

Teachers who take even a moderately affective approach to their work will already understand how such memories find in students language which they did not know they had. This then motivates further acquisition by opening up areas of meaning that their competence cannot express. Such areas of meaning achieve expression in a dialogic interaction between student and teacher. An interesting elaboration of this procedure is given here and involves making the memory collective, and thereby mythical, as if to give the class itself a sense of emergence from a common past. Although false, such collective memories are perhaps expressive of some shared reflection on a persona that has been discarded with the assumption of the role of a more confident learner.

The exercise made clear that a description of place is achieved largely through direct reference, in this case 'a wood, a path, a sunset'. The referents function as metonyms (Gibbs 1994) which are used to evoke our schemata of place. We will use these schemata to complete a more detailed and evocative scene. A more metaphorical 'it + be + as if' structure is used to describe the more abstract relationship of the individual to a place and in this case also, to a sense of a point in time.

A week later, and during another session with the same class, I acknowledged this metonymic pattern but related it back to a speech figure with the following 'tree-type' diagram:

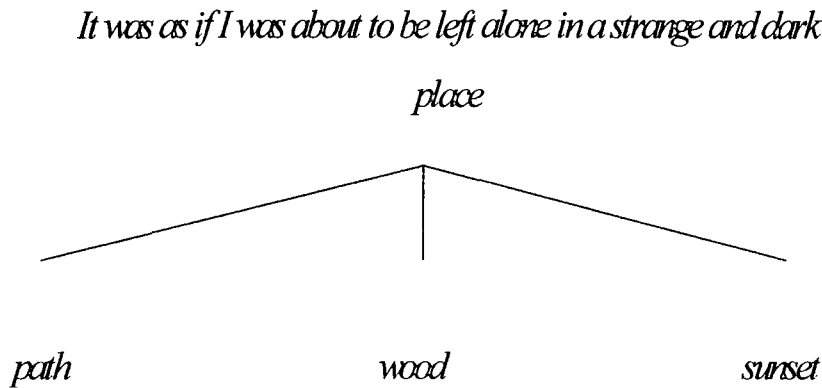


Figure 6

The idea was that the figure of speech should evoke the metonyms around which the description had been built. The metonyms should in their turn become a means to rebuild the description through the other elements they evoked. Thus, path was extended through words such as ‘winding’, ‘narrow’, ‘dark’ and ‘long’.

The students were at first puzzled as to the objectives of these two classes. Some suspected that it was an exercise about using the past tense. One student suggested that the purpose of the activity was to practise structures with ‘like’ or ‘as if’.. I explained that since they were learning language as a group, the class should try to see themselves as having a common past in that language, one which was, as it were, patched together out of the very different types of experience that they had had. One student was sceptical and claimed that they had problems with fantasising in this or any other context.

In sum, the lesson and its short follow-up made two useful points. The first is that evocations of place through concrete reference cannot be relied upon to evoke figurative thought and language. For these purposes, activities are better structured towards an evocation of abstract thoughts and emotions. However, an evocation of

place is well suited to highlight and practise the metonymic cast of descriptive language. Further, one can make a final pitch towards the more abstract zone of our relations to place and through these towards the use of figuration and ‘as if’ structures to represent emotional states. The second point concerns the student who claims that they do not ‘fantasise’. I will now address this issue by recounting another technique that I have called ‘*Layering*’.

4.4.2 Metaphor and affect: layering

4.4.2.1 Layering: introduction

When the activities I have tried involve a use of collective or individual imagination, one or two students have often claimed that they do not fantasise. Although fantasy and day-dreaming may be to some extent regarded as facets of human structures of mind, there are clearly variations in the degree to which this is the case. Further, autism, which may occur in very mild and hitherto unrecognised degrees, has a propensity to exclude fantasies and daydreams (Hobson 1993). The statistical likelihood of encountering students affected by this condition in any given class would probably be quite great and therefore one cannot discount such students as if they were the victims of sad delusion. Nonetheless, imagination can be taken simply as an extension of our mental representation of the world. A useful response is therefore to ask that student to describe a far away place they know or a person who is not there. If their description falters, they can be asked for more detail. Often, such students can evoke a place in extraordinary and painstaking detail. After, they have exhausted the topic, one should simply point out to the student that they have visualised something not there and that this was all that everybody else was doing in the exercise. If metaphor-making is the objective and time is available, then one can hold over the theme to another session and initiate another procedure.

‘Layering’ involves the superimposition of one form of description upon another. It is the enforced rendering of one thing in terms that differ from those in which they might be normally expressed. For this, I used reproductions of paintings or copies of evocative photographs to encourage students to produce descriptions that do not refer to the picture itself but to the impact that it has upon the students. I gave a student a

picture and told them to describe it in terms of its emotional impact. I told them that they could not refer to anything that is in the picture. They should choose words that describe the impact the picture has on them. While one student is making this description, the rest of the class try to imagine the picture that has triggered the student's response. They try to visualise the emotions that this student has seen. When the description is complete, one or two students are asked to describe the picture that they have visualised.

An early mistake with this activity was to 'go in cold'. An advanced student was given a picture and asked to describe it in the way suggested. If they understood the activity, which was not always the case, their descriptions would be extremely limited and often turn around a few abstractions, some of which would be repeated, as they felt unable to advance beyond a few basic concepts. I tried to remedy this problem in the class described below.

4.4.2.2 Layering: outline

Aim: To encourage the expression of emotion, sensation and abstract ideas through metaphor

Procedure:

- 1) The teacher selects a picture that makes a strong emotional impact.
- 2) The teacher does not show the picture but writes words on the board that are associated with the impact that it makes (e.g. power, love, conquest)
- 3) The teacher asks students to describe the words on the board, saying what they remind them of.

- 4) The teacher shows the picture to one student only who must describe the impact the picture has on them without mentioning anything that they see there. The rest of the class tries to visualise this picture.
- 5) Each student talks about the kinds of picture they have seen in the same manner.
- 6) The picture is passed around and compared with the those that the students have constructed.

4.4.2.3 Layering: classroom narrative

I repeated the activity more recently with a reproduction of Delacroix's extraordinary painting: 'Arab on horseback attacked by a lion'. The picture is evocative of movement and terror, with the lion seeming to be about to lift the horse from underneath and topple the rider who strikes down with his sword. The background suggests a swirl of dust that seems to draw all things into its vortex of fury imperilling even the sense of form and identity allowed to lion, horse and rider in the foreground.

This time, students were given the opportunity to visualise a single emotion before they had to express a larger and emotionally confused picture. I had not planned on this beginning, but this was an evening class on wet, winter night with me as a substitute teacher and the four students who had bothered to turn up. They were huddled at the back. I brought them forward and saw the impossibility of introducing the planned activity without a longer introduction.

I wrote 'Power' on the board and the class were asked to say what the word made them think of. Most produced the very common metaphor of 'Power is money' and since one abstraction was being likened to another, one class member was asked to elaborate on how they visualised 'money'. They showed reluctance to engage the subject in an extended manner and simply said 'business', then 'big business'. I asked them to make a mental picture of 'power' then to describe it. One student came up

with 'New York'. I asked them to describe New York. The student confessed they had never been there. Untruthfully, I said I had never been there either, but could still describe the city. I asked them to imagine they were in New York. The first student then talked about 'huge buildings', 'lots of people' and I re-articulated these phrases as 'tall buildings, skyscrapers and bustling crowds', writing the appropriate phrases on the board.

I wrote 'Fear' on the board. Somewhat defensively, one male student claimed that they never felt fear. However, they made a clear and common association between two ideas when they said they were young and never thought about death. I said that fear for me was an aircraft that had lost one engine. I described looking out of the window and seeing a progressive loss of altitude. With the sentence 'fear is an aeroplane that has lost an engine', I cued a metaphor. Other class members took up the pattern. One said that fear was a snake, and recalled how she had nearly stepped on one while walking in a wood in her native Japan. Three other associations were:

Fear is exams

Fear is waking up in England (because the weather is always bad)

Fear is a walk home at night

The class was a group of international University students doing some general conversation. The most interesting response came from a Korean student who said that fear was speaking at a seminar. He recalled how recently he had been asked to say something about post-modernism and the construction of feminism in Middle Eastern society. He recounted how he understood the topic perfectly and had come to the seminar better prepared than many of his peers. However, when his politics tutor had invited him to contribute to the discussion, he had simply been unable to speak. After twenty seconds of silence he had had to apologise and say he could not contribute. I asked him to say what he would have said. He gave a very clear account of how post-modernism viewed feminism as 'socially constructed' and through techniques of deconstruction offered insights into how that notion was composed and could then be perceived from an alternative perspective. I asked him why he had felt afraid when he could clearly articulate things so well. A student from Spain further reinforced this message of surprise when she said that he spoke better than anybody

else in the class. I used this as a pretext to let him lead the main activity, gave him the Delacroix picture and asked him to describe it without referring to anything in it. He did this with an unusual confidence and a strong sense of what the activity was about.

He spoke of a sense of confusion and conflict. I supplied the word 'struggle' and stressed how this might apply to a conflict where the outcome was uncertain. He said there *was* a struggle and spoke of a feeling of fear. He then elaborated upon the sense of the darkness and obscurity that pervades the picture. Finally, he produced a standard metaphor. The metaphor was not entirely appropriate but testified to his extensive command of language. It had clearly been memorised as 'chunk' from some other context. He talked of 'walking along the edge of catastrophe'.

Whether or not, the students had built very different visualisations of the picture was difficult to determine. With one exception, they all focused on a war scene and talked particularly of the casualties and of the dead. The exception was an account of a picture of famine where the student described a confusion of people against a desert background.

The Delacroix picture itself surprised the class when they saw it. None had considered the animal contest that was depicted.

4.4.2.4 Layering: discussion

Without explicit reference to the notion of a metaphor, the activity had involved the metaphor-based process of articulating abstract concepts through visual images. An exploration had begun of how we explore what we feel through what we see. An implicitly metaphorical process of articulating one type of domain through another had also been initiated. A stage where students were denied a recourse to the concrete had forced a more extensive exploration of their own abstract vocabulary. Perhaps most interesting was how when taken as a whole such activities can push student language in a multitude of different thematic directions. Issues raised, varied from the description of a metropolis to a discussion of the fear of speaking in a foreign language in a formal setting.

The way in which a lesson can benefit from having a structure that is flexible enough to adapt to different themes might also point to some conclusions about how we suggest that teachers approach the issue of planning what they do in class. Metaphor-driven lessons might suggest laterally-structured classes.

We should perhaps make teachers aware that when they plan classes they should develop a sense not of a structure but of a 'semi-structure'. Such a sense entails that any lesson plan can become a trigger to the student's own exploration of what it presents. The plan must allow students the latitude to pursue the ideas it invokes as if chasing down one metaphor's production of another in a stream that is sometimes fast and at others choked by hesitancy or silent reflection.

The class also underscored the key point that metaphor should not be taught as language that is shorn of affective power. Metaphor can help a student to mentally fix language as if around the moment of its significance to them.

4.4.3 Metaphor and affect: metaphors looking for a meaning

4.4.3.1 Metaphors looking for a meaning: introduction

I now look at another activity (Holme 1991) that can help students to locate within them their own ability to build metaphors. This activity can also prove an excellent way to help students find an emotional response to a metaphorical passage of literature. It will further reinforce what I call the grammar of metaphor building, that is to say, the structures out of which metaphors and similes are built when they sit openly upon the surface of the language.

The core of this procedure involves extricating the metaphors from their context. and restoring them to their literal meaning. The example used is from Macbeth's 'candle' speech.

4.4.3.2 Metaphors looking for a meaning: outline

Aim To foster understanding of the metaphorical construction of literary text and to use that understanding to help student's make an individual and creative response to text.

Procedure

- 1) The teacher takes Macebeth's candle speech:

Out, out brief candle
Life's but a walking shadow, a poor player
That struts and frets his hour upon the stage
And then is heard no more; it is a tale
Told by an idiot full of sound and fury,
Signifying nothing

and extracts from it the metaphors' vehicles of the metaphors but not their topics, for example: a candle going out; a shadow moving across the floor; a tired actor who says his piece night after night and is then forgotten by his audience; the confused stories that idiots tell.

- 2) The teacher tells the class about the topics of each of the metaphors and asks the students to imagine and to discuss the picture and the thoughts that the metaphor evokes.
- 3) The class read the poem, allowing its chain of metaphor to evoke again the images that they have just discussed.

4.4.3.3 Metaphors looking for a meaning: classroom narrative

I have taught this type of procedure many times and had published a version of it in 1991. The class I recount here was when I was teaching in central Africa, in the Republic of Congo. The class consisted of second-year Congolese University students majoring in English. The account is now one of experience at a distance and it is mediated by my more extensive thought, not just about metaphor but about my life in that country and that place.

It was a gloomy evening during the rainy season and the classroom had no working light. The unending drip of rain from the buildings' metal roof provided a depressing backdrop to the class. The students, however, were enthusiastic, as was common. My brief was to extend the students' knowledge with some business and technical English which was the focus of the much larger project in which I was engaged. The class were somewhat surprised by a digression into literature. However, all seemed pleased, since they thought the topic more relevant to their studies, which were largely literary in nature. This was a curious inversion of the course's objectives, since relevance had been its over-riding rationale.

The class was told they would look at a poem at the end of the session but would first consider what it was about. As a start they were asked to think hard about 'a candle'. They were to think of how they saw this object. One student talked about a candle in a bottle and the bottle collecting wax. Another mentioned a candle burning on a box when there was no electricity. I asked them to focus hard upon this mental image of a candle on a box in a darkened room. I wanted to point to the middle of the students' semi-circle and say the candle was there. But the seats were benches anchored to the floor in rows. I moved to the back of the class and asked them to look forward at the candle burning on my desk. A student objected that there was no candle there. I insisted there was and said look at it. He laughed and shrugged as if to suggest I was a harmless foreign teacher who should be humoured.

I asked the class to stare into its flame for a few seconds and let their minds follow wherever their thoughts led them. I asked of nobody in particular:
'What are you thinking about?

A student talked about life being 'not long'. Death so often touches even young peoples' experience in Central Africa that, rightly or wrongly, I flinched at dwelling on this further and moved the class on by asking why a flame made them think of this. One answered to the effect that it was because he could extinguish it. I agreed, saying that it might 'put itself out'. I used 'put out' to move them away from their preference for the romance form 'extinguish'.

Next, I asked them to think of a shadow moving across a floor. They were again asked to describe what they felt and saw. One linked the shadow to a flickering candle and said that they saw the silhouette of the flame as if on a wall. Another student felt a feeling of threat and joked, melodramatically, of a sudden shadow falling across the floor. I used the mention of a floor to introduce the word 'creaking' and made the appropriate sound. I next asked them to think of an actor creaking restlessly across the floor of a stage. I paused then again asked the class what they were thinking of. I got no response. The actor was not an evocative figure.

At that time, I was myself rehearsing a part in an amateur production. The part was in French and I was finding learning the lines more difficult than I had imagined. In miming the actor I mimed myself with a text walking up and down trying to learn lines.. One student said I was revising. (In this town, Brazzaville, street and domestic lighting were far from universal and in order to work at night students would often cluster on the road near the airport where there was a battery of still functioning street lamps). I wondered if there was a feeling of desperation about all this learning and pacing and somebody replied that exams made them feel desperate but this was not why they walked up and down.

In order to introduce the next image, I asked the class if they could remember any particular instances of story-telling. In that culture a ritualised use of spoken language was still common. It was customary at Congolese parties, for example, for different guests to take the floor and recount some story, perhaps an elaborate joke that evokes more interest in the narrative than the punch-line, or an embellished account of the mishaps that had befallen a mutual acquaintance. One student mentioned the name of another who was not in the class but who was particularly well known for his

humorous narratives. He appeared to epitomise the story-teller. I then tried to steer the thoughts of the group away from this successful stereotype towards an unsuccessful one. There was an immediate mutter, as of a name being passed round the class. When questioned, the students were reluctant to divulge the name of the person they were talking about. I became somewhat anxious at this point, for the class, which was quite large, was breaking up into knots of different conversations. I picked on one of the more dominant students, and asked what they were talking about. He mentioned how some people like to tell jokes when they are not funny and I realised that the class had probably been talking about a colleague who was known for trying to enliven their teaching with some hopeless humour.

The class allusion presented something of a problem as the next step was to ask them to focus upon an even greater kind of narrative failure, where a story was reduced to a meaningless and furious idiocy. In order to put the previous reference out of mind, I suggested that they should not think of someone whose stories were inept, so much as incoherent or even meaningless. I wanted the background culture to help the class forward again. For, in that community, the insane, unless they are actually dangerous, are generally left at large and are given food by passers-by. However, the class appeared to be fixed upon characters directly known to them and a joke was made about a peer who was notorious for not making sense.

I next recounted a personal anecdote about a picture in a school history book of a wizened sailor telling tales on the beach to a boy. I said that I often identified the cadences of an idiot's story with those of storms at sea. I explained how I thought of stories reduced to a meaningless and battering noise. Such a furious sound could be identified with the mad. The evocation of the sea was not vivid in that setting as some of the students knew only the river. However, I contextualised the theme by asking the students to think for a few moments about the worst storm that they had experienced.

I asked one of the more articulate members of the class to recount his thoughts. The student recalled a journey he had made back to their village during the rainy season. He had anticipated a difficult journey but was stopped by a swollen river that had ploughed a gully through the road. He described sitting in a roadside hut that had

filled up with people as several other vehicles had come to a halt at this impasse. I asked the students to imagine the sounds of the storm. They had little difficulty in doing this, particularly as a storm had just passed. Other students soon began to talk about thunder and rain on the tin roof under which their classmate had waited with other stranded passengers. I inserted a lot of new vocabulary related to the description of sound.

Two ideas fused and I asked the students to think of a madman trying to shout out a story against the background noise of the storm. Time was short, the students were given a copy of the poem and I read it to them aloud while they followed the text. I then asked them to read it silently to themselves. Finally, I asked them to reflect on the words ‘signifying nothing’.

If time had permitted, I would have discussed the empty silence, but on reflection, the clock might have been a better judge of what was appropriate, since such silences are about what cannot be expressed. The class had in fact become a metaphor for the poem, shadowing its structure without ever actually referring to it directly, then leaving its participants in the same uncertain silence.

4.4.3.4 Metaphors looking for a meaning: discussion

This technique places the poem at the centre of the class’s attention. By first decontextualising the poem’s metaphors, I invited the class to chase the many ideas that these images release when they are not constrained by the poem’s over-arching purpose. These images ranged from existential thoughts to anecdotes about acquaintances, childhood memories and other incidents. The final reading of the poem as a sequence of metaphors allowed the poet his own power to structure thoughts and promote an interaction of the students’ ideas and the poem itself. The loose structure of the class was also brought to order by the much tighter structure of poem. The students could thus walk away with an experience that was both free-ranging and able to induce practice in a wide variety of contexts but purposeful and targeted by the poem’s own sense of progression.

4.4.4 Metaphor and affect: exploring category construction and metaphor

4.4.4.1 Exploring category construction and metaphor: introduction

I discussed Lakoff's (1987) notion of a radial category (sections 2.7 and 2.8.12). A category such as mother will have a central case where 'all' cognitive 'models' of that term converge. This mother will typically be 'female', will have 'given birth to' their 'child', 'nurtured it' and, in a somewhat dated view, be married to its father (ibid: 83). This model may stand as metonym that evokes the larger construction of mother (ibid). The central model that evokes the larger category, and the typical construction of any given sub-category will be culturally constructed. In this exercise, I have started to look at how students model a particular category such as 'building'. More ambitiously, I have asked whether we can help students to use the features of these more concrete prototypes to build metaphors that describe abstract ideas.

I have stressed how abstract thought is structured out of our sense of ourselves as physical beings (Johnson 1987) (section 2.8.11). The body, the physical world that we perceive and the relationships existing among the objects in that world are the means through which we conceptualise abstract thought (e.g. Lakoff and Johnson 1999). This principle underpins an approach to learning where students could extend their awareness of how they model objects, then use those models as the physical resource into which they can embed an extended and abstract vocabulary. In other words, students would be helped to understand how they visualise and store physical phenomena, then be encouraged to use these as a vehicle to find more difficult abstract terms. The student would be invited to unpack a category such as 'building' through a description of the stereotype out of which their referent for the word was constructed.

Metaphors construct a sense of similarity between the topic and vehicle term by only employing some features of the domain of the vehicle. Thus, our prototypical metaphor: 'Juliet is the sun' will exploit such features of the sun's domain as 'warmth' and 'brightness' by mapping them onto its topic while ignoring other features such as shape. Therefore, in the following exercise, the initial intention was

that the student would, as it were, unpack a category into kit form, or as a set of features, some of which would become the means through which we elucidate another abstract idea and some of which would not. The intention was that metaphors would work backwards, with students becoming more aware of how a category such as ‘path’ would become available as a vehicle for a metaphor because they had achieved a clearer understanding of what features it could make available to them.

4.4.4.2 Exploring category construction and metaphor: outline

Aim: grasping the meaning of categories and describing category models. Attaching topics to metaphors.

Procedure:

- 1) The teacher gives the class some categories, (e.g. building and path) then asks different students to describe how they picture them.
- 2) The class think of some abstract topics (e.g. happiness, madness or sadness)
- 3) The class build metaphors by matching the abstract topics to the categories

4.4.4.3 Exploring category construction and metaphor: classroom narrative

This was another evening class with a group too small for the very conventional classroom and its cold and forbidding atmosphere. I acceded to this atmosphere of indifference, allowed the students to retain their scattered positions and began rapidly. I gave the class the word ‘building’ and asked them to visualise it. I next asked one of the students to describe what he saw.

The first metonym was a door with columns on each side. The door was fronted by an extended flight of steps. The focus then shifted away to the idea of a roof projecting over the walls. This elicited two lexical items with which the Italian speaker was unfamiliar: 'project' (in this more literal sense) and 'eaves'. The description then fumbled around an elaborate attempted visualisation of another word, which I could not at first deduce. The word was 'chimney' and there was talk of 'circles' and 'rectangles'. Interestingly, the correct deduction, when made, was also achieved through a contiguous rather than an overtly visual relationship of the description to what was being described. The student mentioned 'fire' and both I and those students who knew the word were immediately able to plug the lexical gap (chimney).

I next found that I was naïve to imagine that a category such as building would of itself elicit a culturally stereotypical frame. I turned to a Japanese student in the expectation of a description that would somehow be representative of their home environment. However, the description that emerged, with its brick walls and entrance hall quickly concretised itself around the picture of a very English semi-detached house. This was the first home that the student had entered on arrival in England. The stereotype was being reconstructed around what was for them a more recent and significant event. Perhaps the description was also being influenced by the student's conscious or unconscious belief that it would work better if it could be culturally shared with the teacher or with what were perceived as the normative references of the teacher's mother tongue.

In respect of my failure to elicit a culturally constructed frame, it might also be interesting to remember that a prototypical category will be unstable, not only between cultures but within the mind of a given individual. 'Cat' could be framed differently by the same person when they are in different places (Ungerer and Schmid 1996). Thus, when I am on Safari in Africa, the cat might be a lion. When I am at home, it might be the pet mewing at my feet. It is impossible to determine for sure how far the student had reached towards some stereotypical notion. However, what was plain was how her current cultural context had skewed the description.

I tried a second term. This was 'path'. Again, I failed to elicit any clear cultural frame. The first Russian and Japanese paths were similar. As if in expression of some shared

atavistic unconscious, both wound into dark woods. A second Japanese path linked itself more clearly to a typical Japanese landscape. Less threateningly it led through 'short' trees. However, more interesting than the description's minimal cultural bias was an inappropriate lexical extension arising from a need to express the autumnal nature of the scene: 'The path was crowded with leaves'.

On the surface, such a statement might question my previous assertions regarding the existence of a metaphorical competence. It might testify to how a metaphorical facet of the student's target language competence is failing her because it permits an inappropriate extension. However, the difficulty with such an argument is that the statement, though undermined by an air of inappropriateness, also has a clear meaning. This paradox can partly be explained by some thought about where the inappropriateness of the extension lies. It is unlikely that this inappropriateness evolves out of an unacceptable anthropomorphism, or mapping of the human and animate onto the vegetable and inanimate. Such mappings are common to all languages and, as constantly stated, are critical to the evolution of abstract and grammaticalised meaning in language.

The error that this sentence reveals does not lie in the process of metaphor formation itself but in the understanding of the lexical domain out of which the metaphor is formed. The association of the verb 'crowd' with 'people' will entail a sense of obstruction at eye-level rather than the simple covering of ground at foot level that leaves imply. In this respect, it is notable that the metaphor can be rescued when one changes the topic; for example: 'the way was crowded with trees'. The metaphor works here because trees can be perceived as standing and as having some of the features of a human shape. The description was therefore corrected and a new word introduced:

The path was *strewn* with leaves

The final part of this stage of the lesson switched to a comparison of the paths. The students were reminded of some of the conjunctions associated with comparison and contrast; for example: whereas/while/ and the adversative 'but' and 'yet'. They were

thus encouraged to work towards the production of sentences such as ‘Miko’s path went through short trees whereas mine passed through tall ones’.

In the next stage, my intention had been to find a way to persuade the students to map their extended categories back onto an abstract topic. Thus, I might have aimed towards an utterance such as: ‘my life is a path strewn with leaves’, then asked the class to interpret this. However, I decided to introduce abstract nouns to match the metaphors. My problem was then that it at once appeared artificial to bend the meanings of these nouns back towards a vehicle with which they had never been naturally associated. I therefore allowed the meaning and construction of these nouns to take the lesson in another direction.

I introduced students to the suffix –ness and showed how it could be used to form nouns from adjectives. I asked the students to focus on three words:

Happy -happiness

Mad -madness

Useful -usefulness

I asked the class to try to imagine a cognitive model for these items in exactly the same way as with the concrete categories, ‘building’ and ‘path’. The students discussed their thoughts for a few seconds with a partner then summarised them to the class by supplying the predicate in a sentence of the type:

x (e.g. happiness) is

Some students tended to confuse definitions with metaphorical representation. I therefore tried to explain what was meant by metaphor and gave as an example an approximate paraphrase of a haiku I remembered:

‘The moon on the branch of the tree is a fan’.

After correction and teacher paraphrase, the following types of sentences were produced:

Madness is too much drink
Happiness is too much to drink
Happiness is lying in the sun
Usefulness is a car
Happiness is meeting a girl
Sadness is when Real Madrid loses to Barcelona

Next the class tried to build a more extensive list of words using the suffix –ness. The list incorporated some of the terms that had previously been used.

e.g. lonely –loneliness
happy –happiness
strange –strangeness
cold- -coldness
mad- madness
lovely- loveliness
useful usefulness
bright brightness
loveless lovelessness
sad sadness
wakeful wakefulness

I asked them to write down appropriate metaphors for each of these concepts.

As a next phase, the students in turn read out their metaphors without the topic. The topic had to be supplied by another member of the class who would produce a complete metaphor.

The first metaphor occasioned considerable discussion:

..... a full moon over the sea.

Most students opted for ‘happiness’. One, who had perhaps not fully understood the exercise, and was influenced by the *romance* cognate, tried to build a noun from ‘tranquil’ (tranquil-ness is a full moon over the sea). This initiated a digression into how adjective stems ending al/il/el/ would generally form abstract nouns through the morpheme –ity. The class then reconsidered the metaphor and worked back through a more literal interpretation of its grounds to:

‘brightness is a full moon over the sea’..

Another student was asked for her ideas, which were transparent and quickly grasped:

Losing my money <i>in</i> (at) gamble (ing)	(madness)
Being without my children	(loneliness)

The class focus shifted to another metaphor that after correction emerged as:

Being in the middle of the Sahara

And which was easily construed as ‘loneliness’.

The next involved an attempt to translate an idiom, but was not immediately understood. The misunderstanding did not relate to metaphor per se but to the words out of which it was constructed.

Turning quickly trying to bite your ear	(madness)
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Other efforts were fairly transparent:

To be abandoned at your wedding	(sadness, but provoking the humorous intervention: happiness)
Safeway (the local supermarket)	(usefulness)

The last was another translated idiom. This again caused initial confusion that related both to the complexity of the idea being conveyed and to the idiom’s literal meaning.

‘Sitting on a horse facing backwards’.

The difficulty of literal meaning was quickly resolved with a drawing. The hesitancy as to the topic of the metaphor was overcome when I asked the class how they would respond if they saw a horse coming down the street outside with its rider facing backwards. The topic was then identified as ‘madness’.

The class ended before all the topics could find a vehicle. The end had come on me unawares and I concluded in a hurry, explaining how the students could try to remember the abstract terms that they had formed through the metaphors to which they attached them. Thus, I said, ‘Safeway, what do you think? Usefulness.’

4.4.4.4 Exploring category construction and metaphor: discussion

The class’s drift was from a flawed procedure. The flaw was to attempt an inversion of the normal process of metaphor creation. One cannot expose an item’s field, ask students to survey the revealed features and then select those that would make a useful metaphor. Metaphor creation is motivated by communicative or conceptual need and no such need emerges from this type of procedure.

However, the lesson did divert into an exploration of some interesting and unpredicted areas. It further showed itself to be a useful way to focus thought and classroom discourse upon the target language itself and its construction of meaning, while ensuring that the class remained an arena where communication could occur. Thus, I explored the use of the suffix -ness as well as the language in which the metaphors were expressed.

The initial descriptive or framing exercise required a substantial lexical input and stressed the language knowledge of the students, forcing them to combine terms in novel and, sometimes, inappropriate ways. The exercise was extended in a way that stretched the student’s figurative resources and begged questions as to how one might identify whether words were appropriate to a certain descriptive context. The sudden

turn towards 'comparison and contrast' as when the students were asked to compare the different ways in which they framed 'path' was unplanned but arose from the class's thematic turn. The students felt they had been stretched and stated that they were surprised to find that their level permitted a usage that they considered creative. To mobilise a student's creativity, even in this quite basic sense, is to give them greater confidence to roam freely in a target language and to treat its resources with greater familiarity.

A larger issue raised by the activity is that of how to build classes that explore the notion of category construction with its potential for exploring cultural divergences in the conceptualisations that underlie language. This had not really figured in my original plan. For example, a procedure that could evolve from Rosch's (1975 and 1978) notions of a category prototype and Lakoff's (1987) construction of a radial category might be as follows:

- 1) Give different groups of students a set of common categories, such as 'bird', 'house', 'boat', 'street', 'country' and 'town', 'mother', 'boss' or 'teacher'.
- 2) Give the students a piece of paper with a set of concentric circles on it. They should have as many sets of circles as there are categories.
- 3) Ask different students to describe the same category, in private into a tape-recorder (this is important to avoid students affecting each others constructions).
- 4) Play back the tapes and ask the class to imagine that their own description is in the centre circle. They should position the other descriptions on different points of the circles according to how close or far they are from their own prototype.
- 5) The class can discuss whether the distances match distances in the students' culture.

An elaboration would be for students to imagine forms of the category that they think are far from prototypical, (for example, for 'mother' the new term 'surrogate mother'), then to construct subsidiary conceptualisations for these. Thus, they would start to recognise the network of schemata with which a given lexical item is surrounded when it is fully understood.

4.5 Implementing the approach: the language of metaphor

Here, I address how students can be helped towards using the language with which English expresses live metaphor. Inevitably, creating metaphors in language, albeit within forms that are in some sense pre-taught, must lead to a scenario where metaphor, is, as it were, let loose upon thought with the resultant stimulation of language by affect, and the securing of language within the same. Therefore, although this exercise begins with a more formal interest in language, it finishes with a narrative of a wider exploration of the students' interests and concerns.

4.5.1 The language of metaphor: the lexico-grammar of metaphorical expression

4.5.1.1 The lexico-grammar of metaphorical expression: introduction

Goatly (1998) perceives the occurrence of metaphor as often marked by certain lexico-grammatical features (see sections 2.3.1-4). Thus, structures such as the following are cited as common signals of metaphor construction.

It was as if.....

It was + adj + as

It was as though

It had the feeling of rather than of

I might have been ...

The goal here, as in any linguistic enterprise, would be to give a certain type of meaning an identifying lexico-grammatical tag. However, I have also made the point that although figurative expressions may sometimes be labelled by the type of lexico-grammatical construction they employ, this is far from general. Metaphor motivates the larger construction of language, it is not an aberration signalled by the employment of certain forms. However, as Goatley (1998) suggests, one can reverse this and say that some lexico-grammatical constructions can be analysed for how they signal the presence of 'live' metaphor.

Our concern, then, is with lexico-grammatical features that are employed because a given communicative context requires that a metaphor be marked. Thus, a phrase such as ‘as it were’, (Goatley 1998) may be inserted into a text because the writer feels that a figurative usage is not entirely appropriate to the genre. For example, a research article may aspire to a notion of literal language and could therefore require that a figurative usage should be marked, as if by way of apology. Another phrase such as ‘it was rather as if’ may signal that the interlocutor is uncertain about whether they have found a metaphor that is entirely appropriate. Less directly, it may signal that the event in question is strange or almost unique because even metaphor expresses it poorly. It may also indicate that the speaker is modest regarding their own powers of expression.

4.5.1.2 The lexico grammar of metaphorical expression: outline

Aim: Using lexico-grammatical expressions that mark figurative language

Procedure:

- 1) The students are given a hand-out with expressions that commonly mark figurative usage in English (see section 4.5.1.1)
- 2) The students are asked to reflect on events that were either extremely happy or extremely sad.
- 3) The students are asked to express these events through metaphors without actually mentioning what the events were.
- 4) The rest of the class can guess what the events were and the students who produced the metaphor put them right or not, as they wish.

4.5.1.2 The lexico grammar of metaphorical expression: classroom narrative

The class began with an informal conversation. I managed an easy shift from this conversation into the lesson, giving out a paper while the group were still talking about their sense of isolation during winter nights in the North East of England. I asked the class to provide one sentence that might express this feeling of isolation and initiated a conversation that could be summarised as follows:

- Student: 'I am nowhere'
Teacher: 'Say that again with 'as if'.
Student: 'I don't understand'.
Teacher: 'Use 'as if'. You said 'I am no where'. Say that again with 'as if'.
Student: 'I am as if no-where'.
Teacher: 'I feel as if I am nowhere'.
Student: 'Yes, I feel-'
Teacher: 'But you are somewhere'.
Student: 'A kind of somewhere'.
Teacher: 'If you were nowhere you would be dead'.
Student: 'Here, I feel dead'.
Teacher: 'You are using 'dead' as a metaphor because clearly you are alive. That's good. The lesson is about metaphorical expression. You are as if dead'.

I next asked the class to think about events that they wished had never happened. They should make some notes in English in order to remind themselves of their thoughts at a later point. One of the students laughed about 'it being too awful'. I reassured them that the event did not have to be tragic but could be simply embarrassing, and that they would not be asked to recount the event if they did not want to. Next, I asked them to focus on a very positive event that they had learnt from. The event had to be really incredible or wonderful.

One of the students joked about how she had got married six weeks before, but confessed that the event had not been so marvellous because she and her husband had been living together for six years. She then stated another more positive event: 'When I was seventeen I was told I was going to be an aunt'.

I next gave the students a short hand-out with phrases that signal metaphorical expression. I asked them to remember and to ponder an event that was very strange and difficult to explain. I explained how they might comment on the event without actually mentioning what had occurred. I suggested they do this by using the first expression on their hand-out (it was as if..). This appeared problematic so I moved to the second structure and asked them to find an adjective that would summarise one of their events. A quieter student produced the adjective 'depressing' then made the sentence:

'It was as depressing as failing an exam'

After some correction, his classmate produced the sentence:

'It was as embarrassing as a knight falling off his horse in the a big parade'.

She then recounted an amusing story where she claimed to have witnessed this spectacle at a pageant.

A student asked me about whether the 'ing form' with 'fall' was obligatory. Another question concerned whether one could say:

'I was as embarrassing as a knight falling off his horse'

which was quickly self-corrected to 'embarrassed' and dictated onto the board. I asked the students to try substituting words such as 'ashamed' for embarrassed, but with the proviso that they should be kept within the scope of the metaphor.

I next suggested to the student who first came up with the 'knight' metaphor that she might reword it using another more complex structure:

‘This scene had the (abstract noun) and (abstract noun) of rather than of’

The task was clearly ambitious. Several language problems arose, despite the advanced level of the group. ‘Rather than’ was unfamiliar and needed explanation. The class further became flummoxed by the notion of an ‘abstract noun’.

I then asked the students to form nouns out of the two adjectives that had been used: ‘ashamed’ and ‘embarrassed’. The derivation of ‘shame’ from ‘ashamed’ required help, not because the noun was unknown but because they were searching for a word that retained the prefix ‘a’. This invited discussion of another language issue, namely the meaning of that particular morpheme or affix ‘a’. I admitted that I had never considered it as a pedagogical point before, but was able to produce another example:

‘credit/accredit’

I gave the unsatisfactory explanation that the meaning was equivalent to ‘performing the action the noun + ing (e.g. performing the action of ‘crediting’). I reflected on how often the stem words to which this prefix had been attached were either no longer current or had never been borrowed into the language with the prefix attached:

e.g. filiate affiliate (affilier)

cord (retained as a noun only) accord (accorder)

I could have discussed ‘cord/accord’ as an interesting example of how metaphor had been involved in meaning creation, building a notion of agreement from that of being in a state of being bound, but did not think of this at the time. I moved the lesson back to the topic that had triggered this diversion and asked the student who had come up with the metaphor to complete the suggested structure with the nouns that they had found:

This scene had the embarrassment and shame of rather than of

I suggested the student repeat this and use 'the knight metaphor' then try adding another that was less apt into the second slot. But he said that he had not understood. I therefore asked him to repeat word by word:

'This scene had the embarrassment and shame of a knight falling off his horse at a parade rather than of'.

then tried to coax him into completing with a comparison that was not as apt. This was also baffling, so the I again helped him through:

'This scene had the embarrassment and shame of a knight falling off his horse at a parade rather than of –I don't know- a man spilling soup over somebody at a dinner'

I took the students back through the completed sentence. I then asked them to repeat it as a disappearing text on the board (Holme 1991), getting them to read it with one word rubbed out, then with two words rubbed out, next three, and thus until the whole text is read without a word being written on the board.

I shifted the theme to the expression of more difficult memories and the use of a different structure.

'It was as though I was going to die'.

The metaphor provoked a more reflective tone. Without being prompted, the student who had made this statement, recounted her fears as a child in Argentina when the junta had forced her family into exile and they had had to seek refuge in Italy. She told how her sense of insecurity still followed her.

Her classmate was clearly affected by this account and became more talkative. He was then asked for a metaphor of his own and shifted the subject away towards a very different tone by exploiting the hand-out with an accuracy that surprised me.

'I felt as if I was a bird'

He then described his first experience of paragliding. This student, who had had so little to contribute to other classes, lost his shyness and took over the conversation. The metaphor drew out an obsessive interest that then stimulated a long series of questions from his colleagues. The rest of the time passed with his describing and being questioned about every aspect of his hobby. He discussed the equipment and its technology. The problems of safety and where the best places were to fly. A class that had begun with a focus upon some of the forms of figurative expression, and diverted into an examination of some unrelated structures, now finished as an unstructured dialogue with a timid student becoming the focus of interest.

4.5.1.3 The lexico grammar of metaphorical expression: discussion

Metaphors may sometimes mark their appearance in language with recurrent formal features. These features are not simply valuable as an advanced pedagogical point in themselves. They are also a useful way to elicit metaphors and thus to encourage a more creative use of the target language. The metaphors are often ordinary in themselves but they may be attached to a string of memories and associations. The detailing of these memories was simply a natural elaboration of the metaphor. Even the reserved find something to discuss.

I have sometimes been wary of affective or humanistic approaches to teaching that focus on personal issues when students may not wish to do so, forcing a more intense introspection than might normally fall within the expectations that students have when they sign up for a language class. At the same time, I have stressed the weakness of methods that deal with virtual lives and threaten to make students virtual by scripting their existence with the language of these lives. My language classes work when they engage students in issues that are important to them, whether these are of an academic, political or personal nature. I have also found that students make a more positive response when they feel they are leaving each class with a clear sense of having increased their explicit language knowledge.

In this class, I noticed how a use of metaphor gave students a conceptual freedom concerning their own thought. They could if they chose follow the example of the

student from Argentina and let the metaphor trawl for the emotions evoked by an anxious and difficult moment. If they wanted to express that moment then they could. If they wanted to focus on their engagement with a hobby or interest, then they could do that. However, the discourse that was stimulated was immediately more intense and more elaborate than would have been evoked by some standard lesson on likes and dislikes.

I began this class with an interest in focusing upon linguistic forms that commonly carry figurative language. In fact, the scope of the language stimulated by the practice of the forms far exceeded the interest of the forms themselves. More generally, one thematic focus such as that of the expression of metaphor evokes another such as metaphor's affective power. This means that my sectioning of the topic is somewhat artificial, however, and is more motivated by the organisational need for a primary focus than by how a complete picture of topic would actually represent itself.

4.6 Implementing the approach: metaphor and teaching lexis

I now turn to core issues of how teachers can tap into metaphor as the manifestation of a cognitive process of meaning creation. I look first at this in areas that could traditionally be perceived as belonging more to the area of lexis. I should stress however, that the thesis I am putting forward has stressed the emergence of grammar from lexical meaning and therefore this traditional division of language into lexis and grammar may be less easy to make than was once assumed.

I look first at a simple example of how teachers can ground abstract meanings in the metaphorical origins in order to make them clearer and more memorable. I will then turn to the expression of logical argument in English.

4.6.1 Metaphor and teaching lexis: when arguments are not ghosts

4.6.1.1 Metaphor and teaching lexis: when arguments are not ghosts: introduction

My intention first is not so much to introduce teachers to new ideas as to make them more aware of the metaphorical nature of the techniques many already employ, and thus to show how they might develop this feature of their teaching in a more informed and consistent manner. I will do this by showing how the ways in which they put obscure and often abstract words across may at times be founded upon an intuitive sense of the way those meanings were constructed in the first place.

4.6.1.2 When arguments are not ghosts: outline

Aim: teaching abstract meanings

Procedure:

- 1) Take an abstract word (e.g. substantiate as in substantiate an argument). Reduce the word to its original non-abstract

meaning by indicating the physical root meaning, (e.g. for 'substantiate' something that has substance, 'a table or solid object') and something which seems not to have (e.g. 'air').

- 2) Rebuild the word's abstract meaning out of the physical sense by showing how the words with which it co-occurs can be treated as part of the same metaphor (e.g. 'arguments are air until we substantiate them- hence the metaphor/idiom: hot air').

4.6.1.3 When arguments are not ghosts: classroom narrative

A lesson was temporally diverted from the study of a written text by a student asking for the meaning of the word 'substantiate'. The student's L1 was Korean and therefore he did not have the romance base from which to partially construct the word's meaning.

I turned first to the core meaning of the word. I tapped the table and asserted how that had 'substance'. The student knew the word 'solid', and asked if 'substance' was a synonym. I hesitated, said 'no' and carried the explanation closer to the term's core meaning. I wrote on the board that 'substances were the things from which everything was made'. Whether accurate or not, the statement marked out an area of meaning and no one sought to question this, perhaps because the need to think metaphorically was implicitly understood.

I next explained how we treated certain things, people and even ideas as if they lacked 'substance' or were 'insubstantial'. I explained how words such as 'empty' or 'vacuous' can be applied to character and other abstract concepts. The word 'ghost' was mentioned as if, paradoxically, to frame the group's sense of something that was not there. I asked if the students could think of an insubstantial argument. The request did not stimulate a response until somebody simply said 'a ghost argument'. I corrected this to 'ghostly argument' and at once regretted having dwelt on this supernatural reference. I explained that a ghostly argument suggested an argument

with a certain power to change minds. An insubstantial argument could not be credited with such a power.

I asked everybody to write down something that they believed to be true. I asked each student to state their arguments in turn. The arguments ranged from the need to 'cut the necks' of murderers to the belief that University accommodation was too expensive. I asked students to think how they might 'substantiate' a colleague's argument. As an example, I told them that the argument, 'we should execute murderers' was somewhat 'insubstantial' unless one could show that this reduced the murder rate. The student who had made the original statement objected to the effect that it was a moral issue, and that those who took life had to lose their own life. I seized on this statement and showed how the student had 'substantiated' their first argument. I then tried to represent the argument by drawing a balloon on the board, then showing that it should be tethered to a set of supporting ideas or facts:

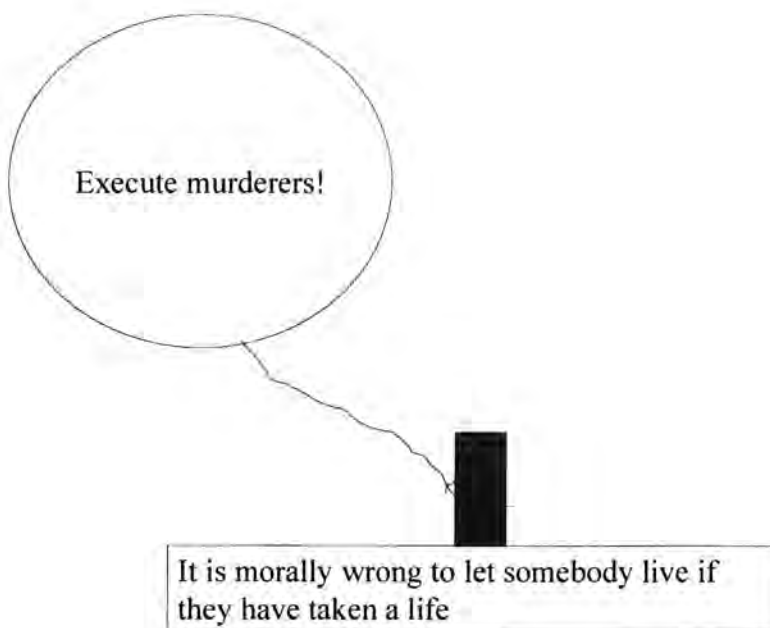


Figure 7

4.6.1.4 When arguments are not ghosts: discussion

The case here represents an extended diversion from a class caused by difficulties with one word. The problem was how to explain an abstract meaning. The solution was to return to a core sense, the one from which the abstract usage had been metaphorically extended. This return was more than a straightforward act of explaining one meaning through another. It meant a venture into the larger schematisation of which the word was merely a part. A larger area of abstract language, involving the notion of 'weight' for seriousness (gravity) and the resulting conceptualisation of argument and opinion was broached but perhaps not fully exploited. The key point is that if teachers have such insights they can immediately find ways to structure the presentation of lexis in class and then help students integrate it into the grammatical forms with which it will commonly co-occur.

4.6.2 Metaphor and teaching lexis: cause and effect arguments

4.6.2.1 Cause and effect arguments: introduction

As a teacher of academic English, I have often found that my students' inability to express deductive argument is matched by a failure to understand the nature of a logical relationship in any language. Students may be confronting two difficulties. The first is a complicated and apparently random area of language. Why, for example, does English say 'depend on' when every romance language derives a phrase with 'of/from' (de etc.) from the same root? The second difficulty is the abstract and problematic nature of logical thought itself, or in this case, what does it mean for the validity of a given idea to be dependent on a set of facts.

Logic, above all, presupposes causation. Causation makes events occur, or links one action to another. For Halliday (e.g. 1987, 1993), causation can be expressed by what he calls grammatical metaphor. A grammatical metaphor expressing 'cause and effect' arises because of the ideas that a process, which is the cause, should be more naturally realised by a verb. Yet for a process to be made a cause it must become the agent of a sentence. It must make things happen. Agency in the physical world is ascribed to 'people and things'. Therefore, in order to precipitate a change of state, a

cause must be reified. It is a ‘process’ realised as a ‘thing’ as in ‘Speaking made me tired’, where ‘speaking’, the process is treated as an agent able to alter the state of the object.

Causation must also be bound up with a human sense of ourselves as responsible agents able to precipitate actions. It is as if we are vesting a process, causation, not simply with the capabilities of an object but with those of a human agent as well. In philosophy, causation has always been problematic and, in a now familiar act of reification, Aristotle had to conceive of it as an entity within the world (Lakoff and Johnson 1999). This conception may amount to an unconscious exposition of the ‘nature as agent’ metaphor which Lakoff and Johnson (1999: 212) see as essential to the linguistic stucturation of causal relationships.

A language student, and the EAP (English for Academic Purposes) student in particular, may find in causation the need to express sets of relationships which involve difficult feats of conceptualisation that may be unfamiliar in any language. To this burden of conceptualisation may be added an unfamiliar set of lexico-grammatical realisations. A teacher may therefore find the image schematic approach that is being suggested of particular use when dealing with causation, logical argument and its exploitation of spatial relations and prepositional meaning. To conceive of causation, an abstract entity, as an agent, may itself be a difficult feat. The difficulty relates to how we are conferring upon an often elusive process the powers of self-motivation that are more commonly ascribed to the animate world.

Lakoff and Johnson (1999: 210) have identified many metaphors as essential to the expression of causation. Of particular importance is ‘the path’ or what can be elaborated as ‘the location, event-structure metaphor’ and its conceptualisation of states and states of being as locations, and actions as self-propelled motions. The causal path metaphor can be analysed as follows:

Self-propelled motion	→ Action
Traveller	→ Actor
Locations	→ States
A lone path	→ A natural course of action

Being on the path	→ Natural causation
Leading to	→ Results in
The end of the path	→ Resulting final state

(Lakoff and Johnson 1999: 210)

An additional causal metaphor is ‘changing is turning’ as in turning ‘lead into gold’ (Lakoff and Johnson 1999 211) where we have to conceive of ‘lead’, the resultant state, as a load born in a different direction.

Thus, in a sentence such as 134, below, we should first understand that we treat paths as human guides that lead us to places and we treat logical connections as physical ones. There we have the conceptualisation that ‘logic is a path’ and ‘paths are guides’ with the resulting entailment that ‘logic is a guide’.

134 ‘Deforestation leads to a higher run-off of rain-water and brings about deforestation, putting us on course towards poor harvest and recurrent flooding’,

Sentence 134, above, could therefore be analysed as follows:

135 Deforestation is a path. The path of deforestation is a guide that leads to a location. The result of deforestation, or the higher run-off of water is the place where the path leads. The higher run-off *turns* into (brings about) and in turning comes towards another location or result. A poor harvest and recurrent floods are that location.

All of these metaphors of causation assume sets of spatial relations that are expressed through prepositions:

to → a state/location
 towards → remediable state
 about/around → (turning/change of direction)
 on → (on the path)
 in → (the end state as a container or compound)

over → (an impediment to movement on the path)

from → (a location as an initial state)

Equally, we can perceive how phrasal verbs employ particles in a way that can be explained through the above schema:

Comes from (This is a complex and very interesting case. Cause is also expressed by a metaphor of progeneration {Lakoff and Johnson 1999: 209}. Yet in this case progeneration is expressing itself through the path metaphor. We therefore perceive an image schematic hierarchy where progeneration is itself a causal relationship that employs the path metaphor {'comes from' as in 'where do babies come from?'} to express itself then lends this back as a path-type expression of causation affected by the idea of progeneration as in 'x comes from y')

Results in/from

Leads to

Brings about (perhaps a nautical metaphor in 'bring the ship about', hence causation as a change of direction as if to facilitate a link. Lakoff and Johnson (1999) also see 'turning' as a metaphor of causation)

Equally, there are many verb/preposition collocations. Collocations that may be evolving towards phrasal verbs and which express the path schema. For example:

- Conclude (from)
- Evolves (from/out of)
- Derives from/out of
- Deduced from/out of (derive and deduce are both in origin latin expressions of movement or 'leading' away from 'de')
- Draw from

These last involve a different re-positioning of the speaker in respect of what they describe. We can of course see events or objects depart from a place where we are not situated, just as we can imagine them 'leading to' a place from which we have never been?. However, the common though not universal evolution of prepositions from

body parts (Heine 1997) suggests that we are primarily predisposed towards an egocentric need to view ourselves as a centre towards which or from which events and objects will travel.

Equally, the above phrases show once again how metaphorical hierarchies are at work. The existence of the container metaphor is clear from the ease with which ‘out of’ can be substituted for ‘from’ with ‘evolve’ and ‘deduce’, as with the admittedly more marginal case of ‘derive’. ‘Deduction’ itself supposes a ‘leading out of’, where the ideas must be contained within the premises from which they are led out. Interestingly, also, ‘deduction’, as the word’s etymology implies, (lead from) suggests the existence of a human agent. This action ‘leading one point out of’ another can be initiated by a human subject. We therefore engage in bringing the connection into existence as opposed to conceiving of ourselves simply as the witnesses of events travelling down their particular paths.

Causation is also schematised through ‘upward’ or ‘downward’ movement as in: ‘a problem has *arisen* in Bosnia’ (Lakoff and Johnson: 1999: 213). Relatedly, one has the notion of ‘cause’ working upwards against gravity in the ‘ideas are buildings’ metaphor (Cobuild Dictionary of Metaphor).

Downward motion is perhaps schematically more remote and can be found in the etymology of the verb ‘depend’ or ‘hang from’ and the idiomatic ‘hangs on’ as in ‘it all hangs on whether we can get there in time or not’.

4.6.2.2 Cause and effect arguments: outline

Aim Teaching the correct use of ‘depends on’

Procedure

- 1) Explain the construction of ‘depend on’ from the physical event: ‘hang on’.

- 2) Illustrate this with a diagram of the sentences
'Trees depend on rain. Rain depends on trees. Rivers depend on trees and rain'. Where trees are shown as a picture 'hanging' from the picture of 'rain', and 'rain' as hanging from 'trees'.

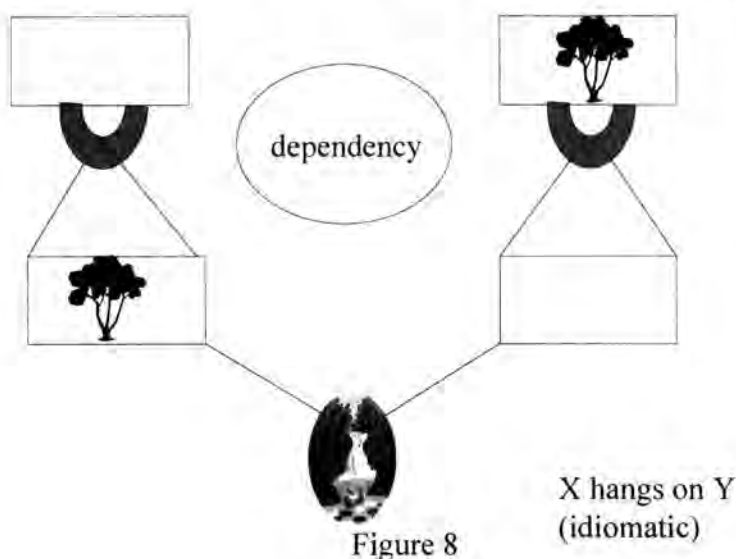
4.6.2.3 Cause and effect arguments: classroom narrative

I have often found that the English collocation 'depend on' baffles romance language speakers. A romance speaker's bewilderment is perhaps not simply because they are matching cognates: (e.g. *dépendre de*: depends from) but because 'de' (from) is schematically more consistent with hanging and supposes the downward direction of one object from another. To complicate the matter further, Romance languages do not distinguish between the directional 'from' and the 'possessive' of, perhaps because they have structured possession out of schema of spatial attachment. Therefore, dependency suggests the attachment of one thing to another.

Recently, a student asked me why English said 'depend on' when 'everybody' said 'depend of'. She asked me this with the same indignation that European students sometimes use when they ask why the English drive on the left. The indignation was humorous but I took it seriously. I first said that Spanish did not say 'depends of' but 'depends from'. The student challenged this and asked me how I knew it. I asked her what '*pender*' meant in Spanish. She was an advanced student but temporarily lost the English word. A colleague helped out with '(h)ang'. I turned to the class and asked if their clothes 'hung *of* or *from* a hook'. I motioned downwards to show hanging as an action and thus gave the answer away. I repeated in a somewhat laboured manner 'hang from, hang from'. There was a pause. The class had temporarily lost direction. The student who first raised the topic said 'yes?', wondering what was coming next.

I first explained, by curling my finger into a hook and resting another on it, that in English we can think of one thing hanging 'on' another. I showed how one of my fingers hooked *onto* another finger. Another student who had been silent said that they did not understand anything. I went to the board and sketched a diagram, which I have since refined as follows:

Cause and Effect Dependency



For the student I improvised this text:

‘Trees depend on rain. Rain depends on trees. Rivers depend on trees and rain’.

Then I indicated the pictures in turn and got the class to build similar sentences.

Next, I pointed to the ‘hooks’ from which ‘the tree’ and ‘the rain’ were suspended and showed through gesture how hanging can be seen either as interrupted motion *from* or as pressure *on* a point or hook. I said how in English it was pressure *on*.

4.6.2.4 The expression of cause and effect arguments: discussion

Some teachers might wonder if this was too long a diversion to deal with a small lexical point. I think that class time which uses the target language to discuss how it constructs meaning is rarely wasted. I also think that helping students to understand the schemata out of which these meanings are built will help them to construct these, at first explicitly but then as a step to internalising them as implicit knowledge. Also, I think the smaller point about ‘depend on’ was effectively made.

It may be the case that the original meaning of ‘depend’ was lost when it came into English. Because English more commonly expresses cause through ‘upward movement’ or ‘building’, as in ‘based on the premise’, ‘depend’ became ‘depend on’ according to the model of ‘based on’, ‘founded on’ or ‘built on’ when it moved into English. But, pedagogically, the point was made, even if it was through an inaccurate construction of the metaphor, and I did not hear the student repeat the error. Interestingly she did correct a French speaker who came later into the class and made exactly the same mistake.

The language of causation, it should now be clear, is one of the most complex and interesting areas of analysis in current metaphor scholarship, doubtless because it deals with our conceptualisation and organisation of reality itself. Such a rich area should demand far more extensive theoretical treatment. Yet it is important also to broach the classroom applications of this work, since they straddle not simply complex forms of language and the peculiarly difficult area of English prepositions or particles but also how we teach logical thought. The above case of ‘dependency and suspension’ illustrates how metaphors of causality can be used to teach both the language and conceptualisation of causation. My mention of ‘on’ as expressing the notion of logic as a building, with layers in a vertical dependency raises how that metaphor can be used. I will now discuss how one might approach other features of this area.

4.6.3 Metaphor teaching lexis: cause and effect paths

4.6.3.1 Cause and effect paths: introduction

In this section, I turn from the teaching of cause and effect through one of the metaphors through which it is conceptualised, suspension and support, towards others that are perhaps even more fundamental, horizontal movement and linkages. These are ubiquitous in logical argument.

My earlier attempts to deal with the language of causation have had a more traditional focus in that I have introduced topics that have evoked the relevant language. One example of this is to use the old parlour game of ‘consequences’ (Holme 1996) but

with a real or pseudo scientific hypothesis. The students thus write a hypothesis at the top of the paper: (e.g. the world is flat). They then pass the paper to a neighbour who draws a consequence from the hypothesis (e.g. therefore ships will sail off the edge). This student folds the paper so that only their sentence is showing. They then pass it along to somebody else who must draw a consequence from the last sentence (e.g. so many people will die in space). The last student to write their consequence must then try to reason it back to the original hypothesis. The ‘chain’ type activities are themselves a type of meta-metaphor for the connected sequences they are trying to practice. In the following activity I try to give that sequence of ‘links’ a more concrete form; one which clearly supports the language I am trying to teach.

4.6.3.2 Cause and effect paths: outline

Aim: To teach the expression and understanding of ‘cause and effect’ with such phrases as ‘leads to’, ‘bring about’ and ‘turns into’.

Procedure:

- 1) Project a diagram of the events in this sentence:
Deforestation results in soil erosion. Soil erosion leads to a higher run-off of water. The high run-off means that water levels rise in the river. Higher water levels can cause flooding and destruction.

The diagram shows each event as a location and the connection between them as a path (see figure 10, below)
- 2) Take the class through the diagram by pointing to places on the path and getting them to describe the events the path connects.

- 3) Draw a path on the board then get the class to produce a cause and effect story. Fill-in points on the path as they tell you the events.

4.6.3.3 Cause and effect paths: classroom narrative

I used another ‘cause and effect’ chain by working with a short text that had a hidden path metaphor built into it because it worked topologically from the ‘upstream’ to the ‘downstream’ consequences of soil erosion. The text was a variation of the following:

- 134 Deforestation results in soil erosion. Soil erosion leads to a higher run-off of water. The high run-off means that water levels rise in the river. Higher water levels can cause flooding and destruction.

After I became more conscious of metaphors of causation I tried to map this text as a diagram that linked the events in a causal chain while trying to elicit the events from the students. This lesson had only limited success. The students were keen to carry the topic off in their own direction and talked about the benefits of crop planting on the deforested hillside. After, they admitted confusion as to the real objective of the lesson. The superimposition of the ‘stream’ as the carrier content upon the metaphor of the path as an expression of causality was made less plausible because there was no swollen current linking vanished forests to the cities that it overwhelmed. On a second occasion I was more directive and mapped out the metaphor in the following manner:

Cause and effect paths

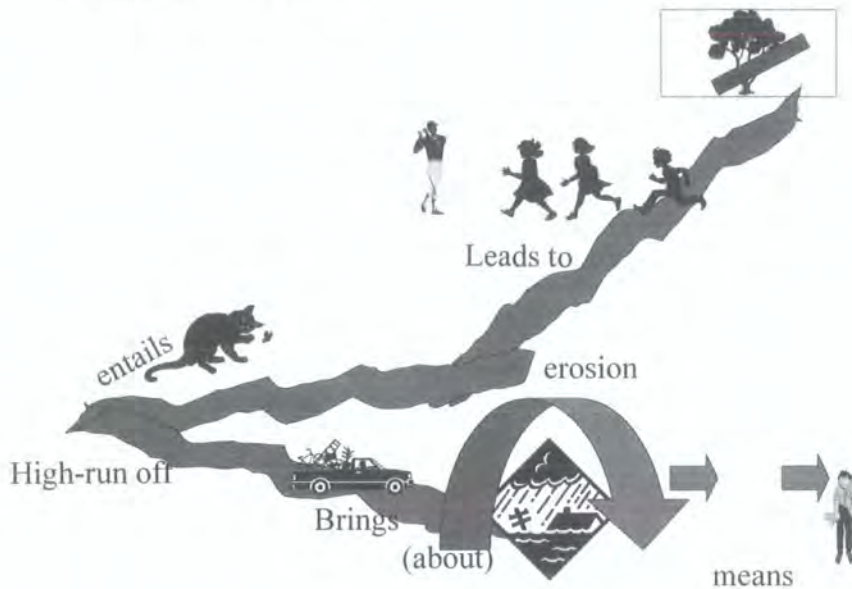


Figure 9

The original theme was retained. The lesson reverted to a 'PPP' (presentation, practice and production) mode. I projected the diagram on an OHP and used it to put across the following text:

- 135 Deforestation leads to erosion of soil. Erosion entails a high run-off of rain water. The high run-off brings about a rise in river levels and flooding. Flooding means destruction.

I presented the text orally while pointing to the relevant part of the picture. This group had just begun a two-year programme of preparation for academic study and had had little experience with this type of logical chain and probably limited training in the larger area of logical reasoning. However, they mastered this chain rapidly so I then drew a path without the events or other pictures on the board. The path linked circles marked 'x' and 'y'. I then asked them to locate along the path a set of events in a cause and effect relationship. I gave a simple example about having overslept then missed a bus and been late for a lesson. One of the students had been late that morning. Since this was something of a habit, one of his colleagues built a parallel story around that. Their only problems were with the construction of the location-events, for example 'Yusef's sleep leads to late today'. Also 'means' disappeared as a

causal expression at the end of the map and another 'leads to' was substituted. As the events were provided, I wrote them into the circles and sometimes helped with the necessary nominalisation. For example, 'x' (his lateness) led to 'y' (his missing the bus). The example was trivial and this made the complex rhetoric sound somewhat false. However, the grasp of the structure developed rapidly.

4.6.3.4 Cause and effect paths: discussion

The class said that the lesson using the path was very clear and asked me to come back and teach them again. Their emphasis on the clarity of the lesson surprised me, because at first glance this type of diagram appears somewhat muddled. However, it may be that the conceptualisation of a logical relationship as a physical linkage strikes a real and strong chord. It could be that it grounds strange language in a familiar conceptualisation. Presentations of my work on metaphor to other teachers have quite often cued this type of response. It is as if they are being brought to recognise things about language that they had already intuited were there.

After presenting this slide to a teacher development group, it was decided that the arrow with 'bring about' was unclear and the reason suddenly to change to the semantic expression of causation 'mean' was too abrupt. This last point appeared to fit with the students' failure to make use of it when it was tried in class.

A final version of this map was as follows:



The event is now a moving banner or balloon that ‘leads’ a group to the first location ‘high run-off’, itself a change of event order. ‘Bring about’ was mapped in accordance with the ‘changing is turning’ metaphor (Lakoff and Johnson 1991: 207) where a change of direction expresses a causal relationship. Another ‘path’ or the ‘causes are forced movements’ metaphor (ibid: 206) was used instead of differently schematised ‘means’ in order to create greater consistency. While the finality of the end state was expressed as a container with the phrase ‘resulting in’.

A major objective in this version is to give greater meaning to the prepositions. In particular ‘bring about’ was construed as ‘turn’ as in ‘bring the ship about’. ‘To’ and ‘towards’ were related to their spatial schematisations while ‘result in’ was given sense through the concluding and very final reference to a container metaphor. Only the cat’s tail remains as an eccentric expression of the idea of entailment. ‘Entail’ actually derives from the French word, ‘entailler’, meaning ‘cut or divide’, giving the English legal meaning of providing somebody with a portion, or an estate. A fiscal entailment also had the meaning of a payment tacked onto another hence developing the idea of the indissoluble linkage between two ideas, or the connection that underlies cause and effect. Such etymology would provide an interesting example of

how one abstract idea can beget another but through their sharing of a concrete conceptual base, in this case 'linkage' which is the idea used in this diagram. Although a distortion, the eccentricity of the false 'tail' metaphor may also make the idea being expressed more memorable while retaining the metaphor of connection that anyway lies behind the true etymology of the word.

4.7 **Implementing the approach: metaphor and teaching grammar.**

I have held that a metaphorical process underlies many of the acts of meaning creation and the statements of meaning relations that have been understood by others as a more abstract facet of mind. My argument is that of Lakoff and Johnson (e.g.1999) Langacker (e.g. 1994) and Heine (e.g.1997) that a grammar is not structured by such patterns of mind. A grammar is like any system of abstract representation in that it depends on our ability to conceptualise its meanings through metaphors born of our existence as an embodied mind (see sections 1.1.8.10 and 2.8.8.2).

The pedagogical question that emerges from this concerns how far one can employ the metaphorical origin of a grammaticalised item in order to explain how that item is used. For example, like other indefinite articles in other languages the English ‘a/an’ has evolved from the word ‘one’ (Heine 1997). This is clearer in a language such as French where the numeral and the article are the same word. Some African languages also show how it is quite common for the word for ‘one’ to be derived from the word for ‘finger’ (Heine 1997). It can also be seen in the English word for number, ‘digit’. It may also explain the near universal construction of counting systems around the number, 10, since this corresponds to ten fingers. In short, our anatomical structure becomes the means through which we conceptualise the abstract notion of number. In its turn, number is grammaticalised or abstracted further in order to become a form of indicative or article, that in English points out the ‘one’ among the ‘many’.

Articles, definite and indefinite, can be an area of particular difficulty in English for students whose L1 does not possess them. Articles are a challenging item to teach, perhaps because their frequency of occurrence means that it is difficult to imagine a context that would isolate them and make their conditions of use evident. Most rules of thumb tend to be abstract and difficult to apply as well as notorious for the number of exceptions that they must account for. For example, one can stipulate that ‘the’ should be used when there is a particular item in mind that is known to both the interlocutors. But this requires that the speaker operate with a conscious awareness of exactly what is meant by a given context and of whether knowledge of the item is shared with their listener.

Some teachers may already have intuited that a better approach could be to work back through the lexical origins of these grammatical terms. Just as ‘a’ has evolved from ‘one’, it seems probable that in almost every language the definite article ‘the’ has evolved out of the demonstrative, ‘this’ (Emonds 1998, personal communication). Such an evolution is in accordance with the Hallidayan (1987) view of the definite article as having a referential function within discourse.

The pedagogical point that can be evolved will focus on this act of reference. If students are having trouble with the definite article, one can simply ask them to imagine one example of a given category and to metaphorically point to it, as if to where it lies back in their mind. For ‘a’ one should ask them to imagine first many examples of the category, then to select one from among them.

Students often request grammatical explanations. They would not do so if they did not believe that the conscious knowledge of a rule could help them towards a correct usage. Some teachers who respond to these requests may do so in the certainty that their explanation may not do much to improve the ability of a particular student to use the form in question correctly. In this assumption, they may be supported by notions of acquisition, and the accompanying belief in grammar as an elaboration of innate forms. The reason for the apparently ineffectual nature of much grammar teaching may be that, as said, grammatical constructions are finally a concrete meaning that has been abstracted over time into the specification of a meaning relation. To offer an explanation as to how this specification operates could be to shift towards another level of abstraction. Even if largely understood, such explanations may be yet more distant from the schemata of concrete things and corporal existences out of which such meanings have been built, and to which we gravitate when we require practical understanding. Explanation posits another level of abstraction when we should perhaps be moving back to the substance that these sets of meaning relations required for them to express themselves at all.

The other traditional solution to the ‘grammar’ problem is to isolate it as structure and to contextualise it as an illustrative situation or example. Thus, we teach ‘the’ by asking students to talk about ‘*the* moon in the sky’ or ‘*the* book that they want to give

a friend'. The situation has the merit of providing practice rather than encyclopaedic knowledge, but assumes that the student will simply be able to generalise from one context to another. A further risk remains that the situation will simply absorb the structure into itself, making it the property of a particular context rather than showing how it might be available for more general use.

To recast grammar in the metaphors from which it has evolved, on the other hand, might be to equip students with a guiding mnemonic that they can carry across the particularities of a given context. In this respect, we should also recall that the creation of mnemonics has been isolated as one of the strategies that permits success in language learning (Rubin 1981). The mnemonic is created when 'the' and 'a' can be identified with a referential action that can be given diagrammatic form. In the following diagram, the relationship between the indefinite article and the idea of number is made clear. 'The book' is 'one' of many. This is contrasted with the demonstrative 'the' where the word itself is made to point to the single example to which the speaker now wants to refer.



Figure 17

A teacher who wants to embed this type of contrast in a conventional situation can do so quite effectively, but should try asking the students to retain this image and extend

its visual slots to the examples that the situation will unfold. The situation could be as follows:

- 144 Imagine you are a thief in a rich person's house. You can only *take* one example of anything that is there and just ten things in all. You are a kind thief so you will not take something if it is the only one that person has. You will not take the video because they only have one. You can take a TV because they have three. What will you take?

As students recount their answers, they should be encouraged to fix in their mind a prototypical instance of the action of taking one (book) from many. Then they can be told:

- 145 You have spread out all these ten things in front of you. Say what you will do with each thing. You have to do a different thing with each one. Imagine that you are *pointing* to it as you are speaking
e.g. I will give the necklace to a friend. I will hang the picture on my wall
etc.

It is clear that such procedures revisit situational methodology in some sense. However, my more innovative suggestion now is that teachers could think more carefully about how to search for a coincidence between a situation that is illustrative of how an item is used, the conceptual or image-schematic origins of that item, and a metaphor that illustrates its function of use. Further, teachers need to think about helping students not simply to retain a situation as an example of use but to treat it as a prototype from which to map it to a wider productive phase. The traditional PPP (Presentation, practice, production) lesson, with its origin in military training routines, would present the structure in a context of use, drill it then proffer a context whose object was to stimulate its practice. A more interesting process than repeated practice would be to involve students more in the creation of appropriate context by analogy to the situation in which the item is first presented. Thus, students would start from what is here the prototypical idea of theft endowing stolen objects with their singularity ('a' to 'the'). They could then be asked to brainstorm for other analogous contexts: the

chosen gift, the selected person, the hapless volunteer, for example, pursuing each through its chosen narrative.

Tense represents another area where metaphor can be used to elucidate quite complex rules of thumb governing use. Two types of metaphorisation can be employed. The first involves finding a metaphor, such as a time-line, to represent the rule. The second entails a closer focus on the process through which a given structure may have been grammaticalised. However, in the above example we showed how we can use our knowledge of the grammaticalisation of the article to help students use 'the' as a demonstrative, then embed that into a visual metaphor. There is thus an attempt to make the students build a metaphor of explanation out of the metaphor that motivated grammaticalisation. The same can be done with tense.

Like other 'grammatical' items, tense also offers teachers the possibility of re-inserting it into the conceptual metaphor by which it was once constructed. In their turn these metaphors may proffer a stronger sense of how the item is used.

I have discussed the relationship of the copula in many languages to a notion of 'life' or being. Thus, the statement that the 'book *is* here' is built out of metaphor of 'presence' as a kind of reflected existence. Objects live when we see them. By the same token, one can speculate that to say 'a child *is* good' may be to confer upon them the status of an existence in a state of grace.

The present tenses in English cause problems to speakers of languages that do not possess their distinction as to the nature of present time. A first step to a fuller understanding could be to follow suggestions that have also been made for teaching the passive by exponents of 'the lexical approach' (e.g. Sinclair 1991). This means treating the present continuous not as a tense but as a verb + adjective construction, where the subject is described as existing in a state of activity, when activities are by their nature of limited duration. Thus, the present simple could be represented as an evolution of 'be + adjective', as through the sequence, 'she *is* **happy**; she *is* **dancing**' with the use of bold type to underscore the relationship between the two constructions. This can then be developed through a pictorial reference where the

adjective becomes a frame in which the subject takes up temporary abode, as is shown in figure 18.

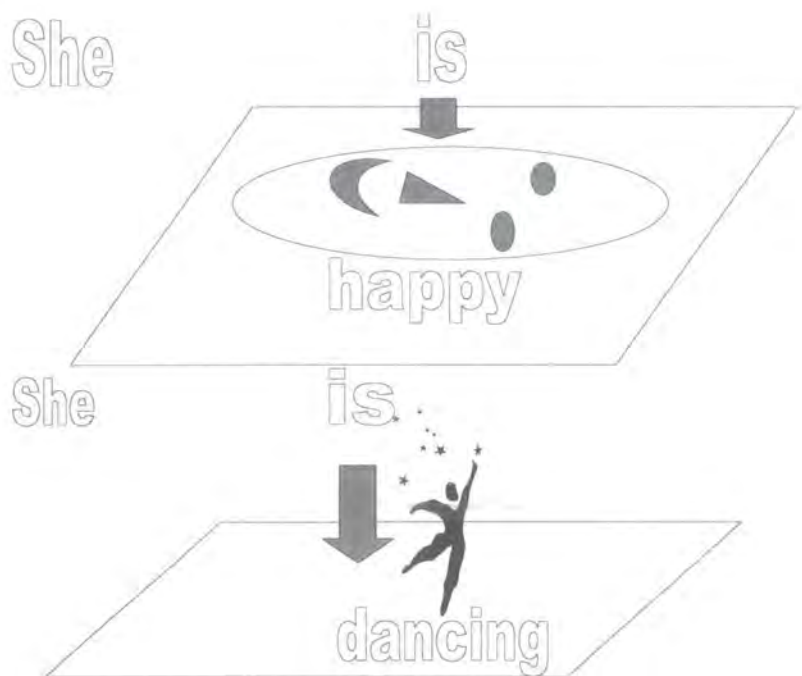


Figure 18

The ‘time is space’, ‘state is location’ metaphor is also exploited fully, here. The action, ‘dancing’ is thus presented as if it were itself the time-limiting condition.

4.7.1 Metaphor and teaching grammar: the present perfect

4.7.1.1 The present perfect: introduction

Another problematic item that might be more clearly elucidated by reference to the schema out of which it has been built is the distinction between the present perfect and past simple tense. Different languages structure the past differently and with varying degrees of complexity. The present perfect/past simple distinction is far from unique but causes considerable difficulty nonetheless. A curious but under-exploited feature of both the present and past perfect is their use of a possession schema (Heine 1993). It is as if the possession of an accomplished action represents its accomplishment. One has the action in hand. The action’s completion is signified by our possession of it. A similar process can be found in the meaning shift of the English verb keep Heine (1997). For example:

- 146 they keep the money
147 they keep complaining

where a notion of possession as storage is shifted from goods to an unfolding action, with the resulting sense of the action as maintained or made to continue. By a similar process, it could be that the present perfect, the possession signified by ‘have, avoir or haber’ is of the action described by the adjectival (participle) form that it normally precedes. Over time, this usage has been grammaticalised into the specification of a temporal relationship or tense. ‘Have’ + verb past participle, thus, signals a temporal frame for the signified action without any enduring connotation with the notion of possession.

One method of exploiting this is to reify the verb, or make its past participle an object to which the student lays claim. Laying claim to the verb is made synonymous with laying claim to the action that it signifies. Reification, as Langacker (1994) has shown is a key property of language.

4.7.1.2 The present perfect: outline

Aim: Teaching the present perfect. Distinguishing the present perfect and the past simple

Procedure:

- 1) The teacher tells students the past simple form of a verb then asks them to change it into an irregular past participle. The teacher writes each past participle and each past simple onto separate pieces of paper as they elicit the correct form from the students.

- 2) The teacher distributes the papers with the participles to the students.

- 3) Students say they 'have' (in their hands) their participle, e.g. I have 'spoken'. Other students try to remember what they 'have'
- 4) The teacher indicates two students, A and B. Student A says He/she has 'spoken'. Student B replies either: 'Yes I have', or 'no I haven't, I have eaten'.
- 5) The teacher draws a prison diagram on the board. The teacher says past simple forms are imprisoned in the past. Present perfect forms are being released from the past and brought towards the present as if in the subject's hand. The teacher suggests a completed past action, e.g. 'I ate my first meal in a restaurant' and sticks the verb 'ate' inside the prison then suggests one that continues into the present, 'I have eaten' putting it outside the prison, on the road to the present.

4.7.1.3 The present perfect: classroom narrative.

I explained this exercise to a colleague and sketched a diagram for her. She took notes and agreed to try out the idea with a tape recorder. My account is built largely from my listening to the tape of what occurred.

To prepare this exercise, the teacher tried writing out a set of irregular past participles on separate pieces of paper. In order to cut down on preparation time and involve the students in the activity, she did this writing of verbs in class by telling the students the past simple form of a verb and asking them to change it into the past participle. If they managed to do this, they were given a piece of paper with the past participle written on it. If they did not, the rest of the students were asked to help until the correct form was found.

After all the past participles had been distributed, each student was asked to say which verb form they had. They were asked to use the form 'I have' as opposed to 'I have got'. At the same time, they were told to try and remember who had which verb. In

turns, they then had to point to different members of the class and say what they had with the form 'he/she has'. The class could disagree about who had which verb form.

- e.g. Student 1 He has 'eaten'
 Student 2 No, I haven't
 Student 1 Oh, you don't look hungry
 Student 3 No, *she* has eaten (pointing to another student 4)
 Student 4 That's right, I have eaten.

Inadvertently, the class was practising the present perfect through the schema of possession of the past out of which it may have been built. Though artificial in conception, the class sounded as if it had acquired a curious naturalness, building its practice with a steady rhythm that kept the teacher on the periphery.

When all the participles had been found, the teacher asked the class what tense they had been practising. The class correctly identified the present perfect. The teacher then explained that they had been building and practising the tense in this way because it was really about the possession of the past. They used the present perfect when they could touch and feel the past, holding it as if it was in their hands.

The second stage of the lesson had been planned around distinguishing the present perfect and past simple. For this purpose another metaphor had been planned. This involved drawing the plan of a prison as a rectangle on the board, (figure 19, below). The idea was that the past simple forms would be placed inside it and the past participles would be placed upon a drawing of the road outside. The basis for this was that past simple forms represented actions that were imprisoned in the past, while the past participles were acting as free agents and could be conscripted into actions that had been repeated since the past. Students could then use the verbs in the two ways that were appropriate to the verbs in question. Thus, a student who took the 'imprisoned' verb 'read' from the diagram below could have made a sentence:

148 When I was a child my parents read to me. I have often read to children since.

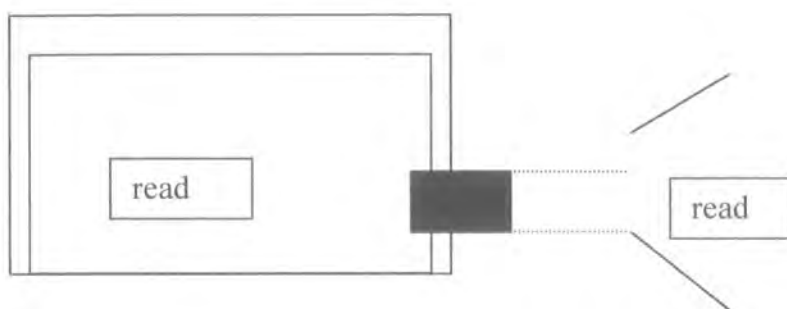


Figure 19

A more conventional way to represent this difference would be with time lines, discussed above (see figure 5 above). However, although metaphorical in themselves, these diagrams create a conceptual gap between their generalisation of how to use a form and the context in which it should be used. They improve on the simple rule of thumb by giving it a visual illustration but they are remote from the type of contextualisation that is a feature of both the communicative and the older, situational approach. In this exercise, the teacher tried to cast these prescriptions in the stronger metaphor of imprisonment in the past and release towards the present. Situational methodology might tacitly acknowledge this by making ‘the prison’ the illustrative example for the past simple. However, if, as said, there is a risk when forms are put forward as governed more by a situation than a rule, then the student may not perceive how they should be generalised to other situations. Equally, there is a risk when the rule lurches into an abstraction for whose realisations the learner must fumble as if in darkness whenever the appropriate context will arise. A better way must be to set the rule in a more concrete metaphor, one to which the appropriate realisation can actually be attached, in the way that verb forms are imprisoned by being stuck to the right place on the board.

This last part of the procedure caused some confusion, because it followed a somewhat different approach from the one that had preceded it. In the first exercise,

there was an attempt to make structure transparent by taking it back to the metaphor out of which it had arisen. Next, there was an attempt to elucidate the point further through a metaphor that contrasted one type of context with another. In the second stage, metaphors were used to make a more concrete and general statement about the type of context that will tend to express itself through a given structure. The metaphor links a tense to the circumstances that require its use. In the first stage, the metaphor is constructed out of a suggestion as to why a given tense employs the forms that it does. The metaphor of possession is an attempt to make a form less arbitrary and perhaps more memorable. It may also either lock into a schema or conceptual metaphor of ‘possession is completion’ that students may already have, or at least help them to construct the same.

4.7.1.4 The present perfect: discussion

When I discussed this class with the teacher, she evidenced a somewhat defensive humour. The humour seemed to hold me liable for having given her a lesson plan that was not yet properly constructed. She said she may not have carried my ideas out properly but my listening to the tape left me with the feeling that the procedure required substantial revision.

The teacher confirmed that the students expressed interest in each of the stages. The students were somewhat perplexed by the first stage since a conventional pedagogical approach to the appearance of a semantic item (have) in a grammatical role (have done) is generally to deny it meaning. A classical notion of grammaticality is established upon that denial. As a result, almost all the teachers I have watched generally make clear that they are talking grammar or word meaning. They do not generally show how grammar may have evolved from word meaning. Conventional pedagogy thus disconnects ‘have’ the auxiliary from ‘have’ the verb of possession, as if any type of connection will confuse. Yet, the teacher did agree that this notion of an accomplished action as ‘owned’, as if in the hand, had made the structure more graphic and more memorable.

On consideration, I realised that I had confused not just the lesson by overloading students with two different and distinct types of procedure but also the teacher in respect of how the present perfect had been constructed. ‘The possessed action’ is a participle or adjective. Therefore any notion of possession should attach not to the verb action but to the object with which it agrees. Thus, the student should not hold the past participle in their hand but the noun phrase that it describes. This is made clear in French where the participle agrees with the noun object, as in ‘je **les** ai mangés’. The present perfect is not constructed out of the possession of an action but of a noun or noun phrase and the action that describes it. The fact that the action describes the noun phrase is shown by the pattern of participle-object agreement. Where there is no object the perfect constructs with ‘être’. Therefore, the procedure, I adopted in the above exercise may still have been over-influenced by the old notion of grammaticalised verbs being regarded as the main pedagogical objective. This structuralist influence ensured that the exercise unfolded in the manner of an old substitution drill. The verb as a unit remained the focus of the practice and the rationale for the sentence in which it was set.

A second difficulty arose from a different use of metaphor in each of the lesson’s stages. The class may have appreciated the explanatory power of the prison metaphor. Yet, obviously, no notion of past simple construction attaches to the metaphor of imprisonment. A more graphic connection would have been made with a metaphor of confiscation. Past simple events could be seen as confiscated or put in obligatory store. The present perfect could signify their possession and hence their release.

For example, the procedure could be reconstructed around a schema that expresses the possession of an object from the past rather than of the action that has been made into an adjective in order to describe it. This might give the following procedure:

- 1) Write irregular verb past participles on different scraps of paper.
- 2) Write common nouns with which the verbs can be easily associated on different scraps of paper (e.g. read/the book, drive/the car).
- 3) Distribute papers with irregular participles, then give each student a paper which has the appropriate object.

- 4) Students indicate their possession of the items as follows:
I have 'read the book'.
- 5) Other students memorise what their classmates *have*
- 6) Other students indicate what their classmates 'have'.
e.g. She *has* 'read the book'.

The above idea could then involve distributing nouns at the same time as the past participles. Thus, there would be a preliminary stage where a student who is given the participle 'read' would have to request an object with which it could be easily associated (e.g. book) and they could then construct sentences 'I have not read many books recently'. One class member, 'student A', could then be identified with an action and an object. Another, student B would then have to use the same words to make a statement about 'A': e.g. 'Mamiko hasn't read many books recently'. A difficulty arises with intransitive verbs, because English, unlike French, does not manifest the metaphorical basis of the tense by constructing intransitive present perfects differently (*il est arrivé* versus *he has arrived*). The question then arises as to how one signifies a case of possession of something that does not exist unless by constructing a very complex argument where the intransitive case signifies the agent's possession of itself through its agreement with a completed action. Yet here one risks subverting the aim of this type of distortion, which is to make abstract grammatical ideas easier to grasp by restoring them to the lexical roots from which they have been metaphorically extended.

As said, the second stage should probably be more strongly separated from the first because it deploys metaphor in a different way. If 'the prison of the past' metaphor is used, the incarcerated items should not be actions but actions with their objects (e.g. read book, driven car etc.) with their release signalling the use of the present perfect. Another possibility would be for students to lift object words (e.g. book, chair, desk) from a place in the 'room' that signified their isolation in the past. They would acclaim the object's release with a present perfect statement such as: 'I have taken the book' or 'I've looked at the chair'.

Another approach that I have tried with colleagues but not with a class involves using the space of the classroom to map time. In this, I arranged a group behind one

volunteer who sat directly in front of me. I looked at him said, 'this is the end, at the end you think of what you haven't done. What haven't you done?' The volunteer flinched visibly, surprised, then composed himself and replied that he felt broadly satisfied. I wondered if I had chosen the wrong teacher. However, he then remembered something and said:

'I haven't fixed the roof'.

'What else?' I pressed.

'I haven't taken my children out'.

He began to recount a few other incidents, which I noted and distributed on pieces of paper to the class members sitting behind them.

'So you're satisfied with your life?' I asked the volunteer sceptically.

'Yes, I have done most of what I wanted'.

'What's that?'

He was vague and talked about fulfilment.

'You have fulfilled yourself?'

'Yes, mostly'

'How?'

He talked about a sense of spiritual equilibrium. I expressed this as:

'You found a balanced life?'

'Yes finally'. They then made a list of more general achievements, both in the classroom and outside. I also compiled a list.

I gave the list to the student in front and asked him to read the first item.

'I've fulfilled myself, mostly'. I then waved a piece of paper and half-chanted:

'But you haven't fixed the roof'. I made as if to give him the paper then take it away.

He maintained his equanimity.

'No'.

I got another class member to wave their paper and say something else he hadn't done. They now did this every time the volunteer in front of them spoke. They began to sound like an eerie theatrical chorus.

‘What have you done?’

‘I have found a balanced life’.

‘You haven’t taken your child out’.

Some of the teachers thought this procedure was too intrusive. The one who had volunteered to take the front role admitted to a sense of shock at the opening moment and at my appearance as their nemesis. The general view was the idea might work better in a more specific situation such as ‘I am leaving England tomorrow and there is still so much I haven’t done’. I worried that this might make the whole experience more ordinary and less memorable. I argued how anyway people often thought about ordinary things such as not having fixed the roof at moments of crisis but how the dramatic background to the thought might make the language in which it was expressed more memorable. I also asked the group if the sense of the past event as being possessed or owned would make the tense more meaningful. There was some scepticism though no outright rejection of the idea.

It may be that the present perfect is now grammaticalised in the sense that the conceptual metaphor ‘possession is completion’ out of which it has evolved is no longer active. We do not associate the completion of past events with their possession, though the on-going grammaticalisation of ‘keep’ would argue against this. A more active schema could involve the spatial representation of time with subsequent entailments of motion forward to the future and motion behind into past. Teachers may therefore do better to explore the arrangement of time as classroom space that I began to think about with my own colleagues. They could look at movement between different zones of time as they have been mapped onto classroom floor or projected onto the board. These could even reincorporate the idea of possession. For example, one could frame an area of the classroom as the present and ask students to mime certain actions within it while noting or sketching these on pieces of paper in the manner suggested above. Then one could bring the student to the very edge of the present zone and ask them to look at the papers they ‘have’ in order to say the actions they have accomplished within it. After a lapse of time during which other students perform the same activity, the first student could be placed at a distance from the present, thus putting the activity in the past. They would finally be asked to recount what they ‘did’ there.

It is clear that cognition-based approaches to grammar are very much at the stage of suggestion, and that there is as yet little that can be passed on in the form of procedures ready for wholesale adoption. My objective here is as much to open a discussion as to pass on hard and fast methods about how to approach a given item of grammar. In this I am motivated by how my students have often expressed frustration at both behaviourist and acquisition-based approaches to grammar.

Though based on entirely different views of language and mind these have a curious coincidence in that both would see a theoretical awareness of how to construct and manipulate form as interfering in that form's implementation and practise. A student's interest in obtaining this type of theoretical awareness cannot be simply ignored unless teachers hold that their often repeated assertion that grammar rules and practice are useful is entirely without foundation. It would seem a truism that language development is motivated by the need to communicate meanings. In order to achieve this, metaphors are lexified and lexis is grammaticalised. This process may occur in order to represent in-built mental structures or in order to evolve a more effective organisation of the mind/world encounters. Teaching grammar through the schema from which it has evolved may give students a surer grip upon what is at issue. They are, after all, bringing to these forms the same mind that advanced that evolutionary process in the first place.

Teachers can think more about using metaphors rather than situations in order to show how a grammatical structure should be employed. Such strategies would form part of an appeal to the metaphorical or analogical cast of mind that allows learning to take place at all. Such metaphors should thus form part of an approach that merits more extended exploration.

4.7.2 Metaphor and teaching grammar 2: prepositions and particles

4.7.2.1 Prepositions and particles 2: introduction

An area where a metaphor-based analysis may lend itself more readily to classroom application has already been the subject of considerable research. Lindner (1981), Hawkins (1984), Boers (1996) and Lindstromberg (1998) have all explored the image schematic basis of prepositions and their common adverbial use in English phrasal verbs. Prepositions are themselves often derived from body parts (Heine 1997) and have thus been constructed out of the different orientations of the body towards the object being described. Vestiges of this schema remain in English where such parts as 'back' and 'head' are used in prepositions to indicate spatial orientation. Some languages will make the centre outside the body as in the use of words relating to sky or heaven for 'up' (Heine 1997: 39). Again this schema occurs in English with such derivatives as 'heavenwards' or the idiomatic verb 'sky' as in 'he skyed it over the bar'.

Many successful language teachers will already intuit the usefulness of the body as a means to centre our understanding of spatial prepositions. For example, the procedure of blindfolding a student and steering them round the class is useful for teaching and practising left/right, forward/backward orientations.

Yet English prepositions become more difficult when they are abstracted away from the simple representation of spatial relations towards an expression of states of being and of mind. In English they are grammaticalised as particles that will profoundly modify verb meaning and cause quite deep confusion for learners. They can also give expression to the spatial metaphors through which logical and causal relationships are expressed.

Verb particle meanings may have evolved from prepositional ones, nonetheless phrasal verbs can appear to be one of the more random features of English. I have watched lessons where foreign learners are simply not helped by the folk wisdom of their teachers. The teacher will hold that the meanings of phrasal verbs cannot be reconstructed out of those of their verbs and particles and must simply be learnt as a

combination like any other item in the lexical inventory. An added difficulty is that the same verb particle combination can have more than one meaning. For example, 'look up (the information)', 'look up (an old friend)' or 'look up' (and see). While the addition of another preposition or particle will create another meaning still as in, 'look up to'.

A text book approach to phrasal verbs such as that of Flower (1996) attempts a thematic organisation of phrasal verb meanings and also contrasts the different meanings of a verb stem such as 'get' when modified by different particles such as 'on with' or 'up'. The book also attempts some organisation of verbs around their particles, contrasting, for example: 'come up', 'go up', 'pick up', and 'make up'. However, it fails to recognise that the same preposition may modify its verb differently because the preposition is drawing its meaning from a different base metaphor, or at least a different entailment of the same image schema. What exactly I mean by this, I will now make clear by looking at 'up'.

A salient feature of the preposition 'up' is that its referent is prototypically dynamic (Boers 1996). A static case such as the 'pen is up there' has been studied as occurring in only about nine percent of cases (ibid:135). The majority of verb referents are also dynamic. Therefore, unless we are discussing the stative use of the copula or of another verb as in 'it stands up there' or 'it is up', the use of 'up' as a particle will also generally be dynamic simply because of the nature of the verb that it describes. Finally, there is also back-modification, where the particle is to some extent being modified by the verb. In this case, the particle is shifted from a dynamic to a static reference by the nature of the verb. Thus, the same preposition in 'she is up' and 'she goes up' refers to a different schema because the verbs are different.

It is also important to understand that although 'up' is prototypically dynamic, it is often expressive of movement towards an implied, static end-point (Lindner 1981). Thus, when we say 'lift it up' or 'open it up' we are assuming movement towards a final end position. This is an important aid to understanding the fuller, metaphorical use of the particle in English, because 'up' thereby extends its meaning to a referent or schema that is not so much physically dynamic as indicative of something

complete. Thus, one shifts from ‘lift up’ through ‘fill up’ to ‘clean up’ and finds that in the last case any sense of a vertical dynamic has been almost entirely lost.

The above meaning shift is something that teachers can use to rationalise the use of verb particles. As in many of the procedures outlined here, our explanatory departure point is in the physical dynamic. Thus, we show how ‘up’ refers to spatial movement in a verb such as ‘go up’. We then show how this spatial movement is abstracted towards an idea of completion as in ‘fill up’. Both of the usages, ‘go up’ and ‘fill up’ imply the dynamic of a rising level but the latter extends it towards the idea of a point that is completed or attained. This explains how in a phrasal verb such as ‘clean up’, the particle ‘up’ now has the meaning of an action that is complete.

4.7.2.2 Prepositions and particles: outline

Aim: teaching phrasal verbs with the particle ‘up’.

Procedure:

- 1) Brainstorm verbs that use ‘up’ to express upward movement.
For example: walk up the hill, go up the steps. The ‘up’ to express a position above the ground. Draw vertical and horizontal arrows on the board in order to show which verb goes in which category, as shown in the top two circles below.

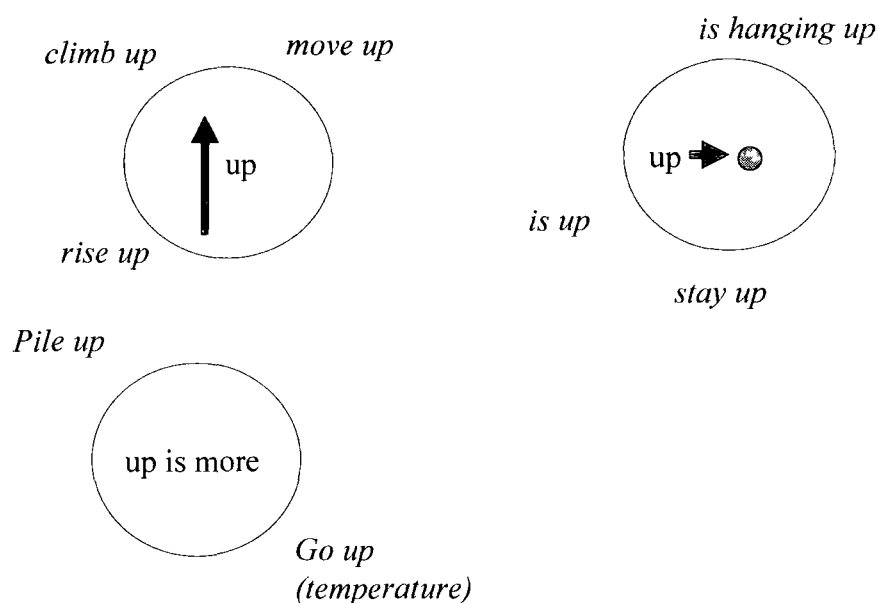


Figure 20

- 2) Repeat the procedure with verbs that show 'up' as increase, then 'up' as end point (e.g. 'draw up', 'split up').
- 3) Explain how we think of what we do not see or know as buried. Ideas are lost in the depths of our mind, they must be 'thought up' or to be heard must be 'brought up'. Information is buried until it is 'looked up'.
- 4) The students construct a chain story where each must contribute one or two sentences and use a phrasal verb with 'up'.

4.7.2.3 Prepositions and particles: classroom narrative

In the first stage I brainstormed for verbs that used 'up' to express upward motion, or 'up' as a physical dynamic. I drew a circle on the board and inside it put an arrow with 'up' beside it (see figure 19 above). Students suggested quite obvious examples such as 'go up' and 'climb up'. Another quipped 'shut up' and this stimulated some metaphorical uses such as 'fed up' to which I responded by asking if they were 'fed

up' because their teachers had 'fed' them too much English. The student shrugged, smiled apologetically, then said that it was just an example. I ignored 'fed up' by only writing verbs of upward movement around the arrow in a circle. 'Fed up' uses 'up' as an end point.

To introduce the next phase, I explained that 'up' was not just upward movement, it was also being 'up'. I pointed to a poster on the wall and said that it was 'up' on the wall. I drew another circle with a dot inside it and a horizontal arrow pointing at it. I asked for other examples of verbs that use this 'up'. A student suggested 'put up' (in the sense of put up a picture) and it was clear that they had not understood the distinction. I therefore squatted down then rose slowly saying 'I am rising up' and now I am in order to elicit standing 'up'. I then wrote 'standing' next to the second circle on the board. Examples were still slow coming so I suggested the word 'picture' and had to insert the word 'hang' myself. Another student suggested the word 'is', reverting to the first example and I wrote it on the board.

In order to move the class on to some more difficult meanings, I explained that 'up' can mean increase as in 'pile up'. The group did not know 'pile' so I gestured with the palm of the hand to show something piling up on the floor then pointed to a 'pile' of papers left by another teacher in the corner of the class. I then asked if it was 'hot' today and the response an unequivocal 'no'.

Teacher: But warmer than yesterday?

Student: OK a little

Teacher: So the temperature is going...

Students: Up.

I moved on towards the meaning of 'up' as completion, first as it expresses an end to the increase in the quantity of something, as in 'fill up' then with an example 'split up' where the metaphorical origin of the term was less clear.

I had intended to cover many examples of each category. As many a detached and experienced observer might anticipate, a procedure that introduced so many similar forms at the same time was almost bound to result in ‘lexical overload’ and cause confusion. I therefore modified in class to include a few examples of each schema, which the class then tried to blend into a single chain story. I left the last and perhaps the most interesting sense of ‘bringing up buried thoughts’ and of unconscious knowledge as ‘beneath’.

The beginning of the story was predictable:

Student 1: ‘I got up in the morning’

Then it unfolded as a sequence of poorly connected sentences, as is often the way with chain stories.

Student 2 I hang up a picture

Teacher Hang....?

Student 2 Hanged

Teacher Hung

The class did show an ability to discriminate between some of the different uses of the particle. However, the initial ‘up’, representing dynamic upward movement tended to dominate, a feature that was perhaps reinforced by the unexpectedly low level of the class and their interest in staying in the security of a language constructed out of a more salient set of physical referents.

4.7.2.4 Prepositions and particles: discussion

It was clear that my first attempt to use this technique meant that my interest in it over-rode the need to provide thematic variety and avoid too large a lexical load. My suggestion now is that teachers who are introducing these verbs should be wary of dedicating an hour and a half to them and should instead allot each schema a separate

spot in a class dedicated to another topic. One or more schemata could be revised before continuing to the next.

In addition, as with any issue of metaphor and perhaps of meaning, it would be mistaken to view a given schema as a clear-cut organisational category without overlap or sets of subcategories with equally fuzzy boundaries. The first approach was implemented with lists of phrasal verbs organised according to what appeared to be a salient schematic principle. This draws on the linguistic need to organise language according to clear categories. In this I was influenced by Lindner's (1981) provision of clear and distinct sets of referents for the particle 'up', such as the abstract end point of 'clean up', and the physical dynamic 'shoot up' that was just mentioned. However, one of the difficulties of dealing with schematic categories out of which metaphors build meaning is that these are themselves metaphorical. As I have discussed, metaphorical meanings are by their nature extensible, and evolve from a blurring of the category boundaries that our schematic principles are trying to re-institute. The extended 'up is an end point' meaning clearly evolves from the spatial referent or 'implied end-point shown in 'lift up', then in 'fill up'. The spatial 'end-point' is then extended by the 'time is space' image schema towards one that is temporal as in 'time's up'. The particle thus becomes a kind of intensifier to underscore the proper completion of an action as in 'clean up'.

My point is not that language learners require this kind of detailed metalinguistic knowledge about how each phrasal verb is schematically constructed. I am not setting out rules here, so much as helping students to construct a fluid sense of different types of conceptualisation that achieve a given linguistic expression. I want to help students to do this because they possess the features of mind that were responsible for these creations in the first place.

In order to focus more clearly on my objective and provide students with surer sense of the different extensions of 'up' as a particle, I constructed the six worksheets below (figures 21 - 27) in order to show how these verbs were organised. I presented these on OHPTs at a teachers conference in Italy 1999 to considerable interest. The way in which they show order in a seemingly random and unpredictable area of language was of a source of positive comment. I tried them again with a group of teacher trainees

from Switzerland, during a language improvement session. Contrary to my previous conclusion I used them together as a set, building a class in much the same way described above. However, this group already had some knowledge of these verbs. The idea that they had some organisational principle incited considerable interest and their story showed a wider scope and a stronger sense of narrative. Most interestingly, in subsequent discussions they started to extend the analytical principle of metaphor to other aspects of language, commenting on such ‘ideas as deep sleep’ when we touched on the idea of depth and unconsciousness, or raising other associated fragments of knowledge such as ‘dig up’ an idea.

The worksheets should not in any sense be regarded as my final word about the teaching of phrasal verbs. Rather, they should be treated as a point of departure or as a statement for further development. In order to hasten that process, I now set out their rationale.

The first sheet, (figure 21 below) lists a set of verbs with some sketches of some of their possible contextual referents. Two arrows frame the verbs and the pictures in order to emphasise the idea of upward movement. Two rockets add a dynamic to the same. The implied intermingling of contexts might surprise teachers raised on a thematic or mono-contextual view of communicative methodology. Yet, it should now be clear that the sense of analogy we are putting forward here entails the differently contextualised images that support and reinforce the same point.

Work Sheet 1: Up as a Dynamic

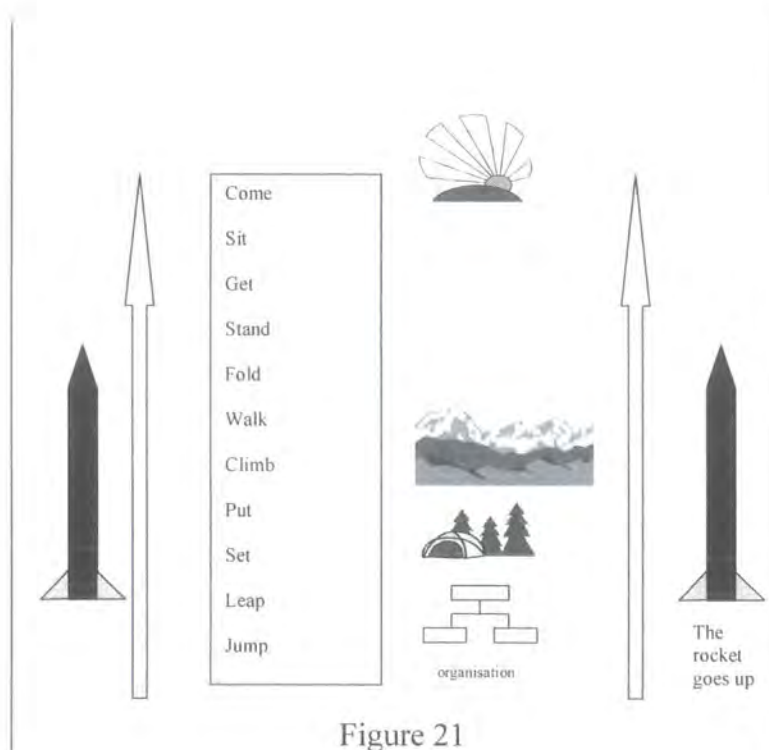


Figure 21

The class can use the verbs and pictures in the worksheet as pictorial cues to produce sentences that formed a chain story. The teacher will generally have to begin with the example: ‘the sun came up and I sat up in bed’. The first student would repeat the teacher’s opening sentence then add: ‘I got up’ and the one after ‘I stood up’.

The shift towards abstraction implied by ‘set up’ as in ‘set up an organisation’ caused problems when tried in class and implies a change of context that is more difficult to incorporate into the story. The teacher however, has the option of maintaining the context by offering ‘I put up a tent, I set up a camp’ while digressing into other ways of using ‘set up’ such as ‘I set up a system or a company’.

Another link from a physical towards an abstract schema is given in the second worksheet (figure 22 below):

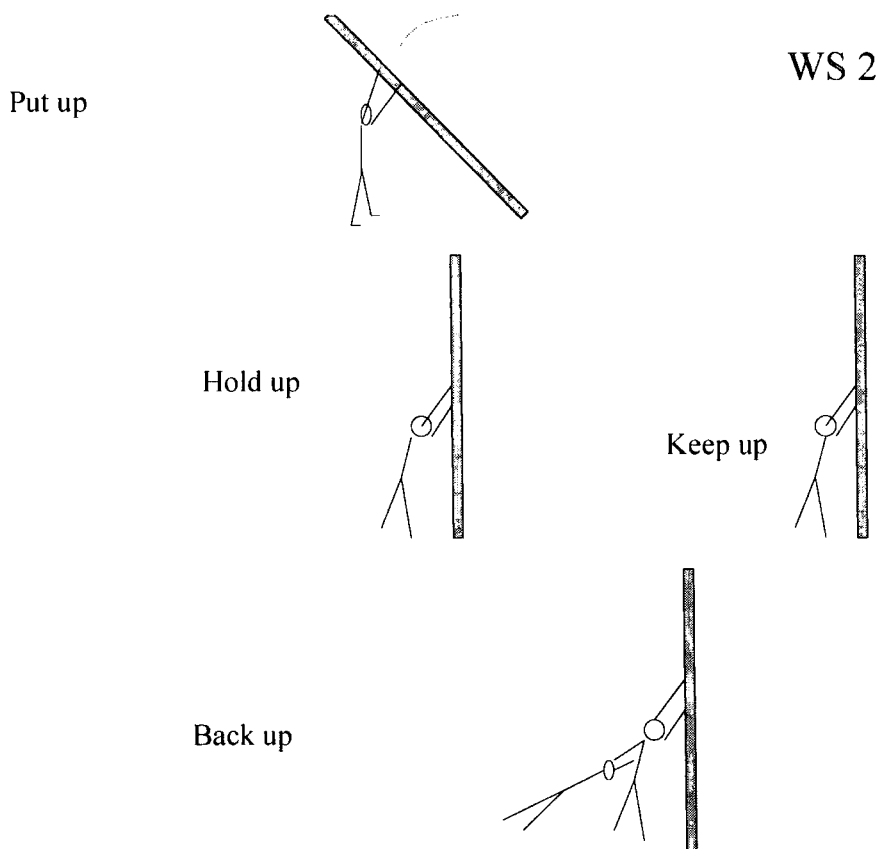


Figure 22

Here, the abstract meaning of the last phrase, 'back up', is related to its physical referent by drawing one stick figure supporting another from the back while they continued to hold up 'the pole'. Students can again be invited to shift from the concrete illustration of 'back up' to the more current abstract sense of 'to offer support' as in an argument.

This presentation of 'back up' also underlines the way in which a phrasal verb will draw meaning from base metaphors that pertain both to its particle and its stem, or to the modification of one by the other. Thus, this notion of support invokes the prepositional meaning of 'back' which itself derives from the part of the body of the same name.

The move towards an abstract interpretation of 'upward' becomes more pronounced when one considers the sense of 'more is up' then the closely related 'up is positive' or 'up is more' Lakoff and Johnson (1980). In putting forward this schema one must

also insert the caveat that an increase can be negative as in ‘unemployment figures are up’.

The relationship of ‘up’ is an idea of increase and its common relationship to a positive characterisation of mood or social state is given through the verbs grouped in the third worksheet (figure 23 below).

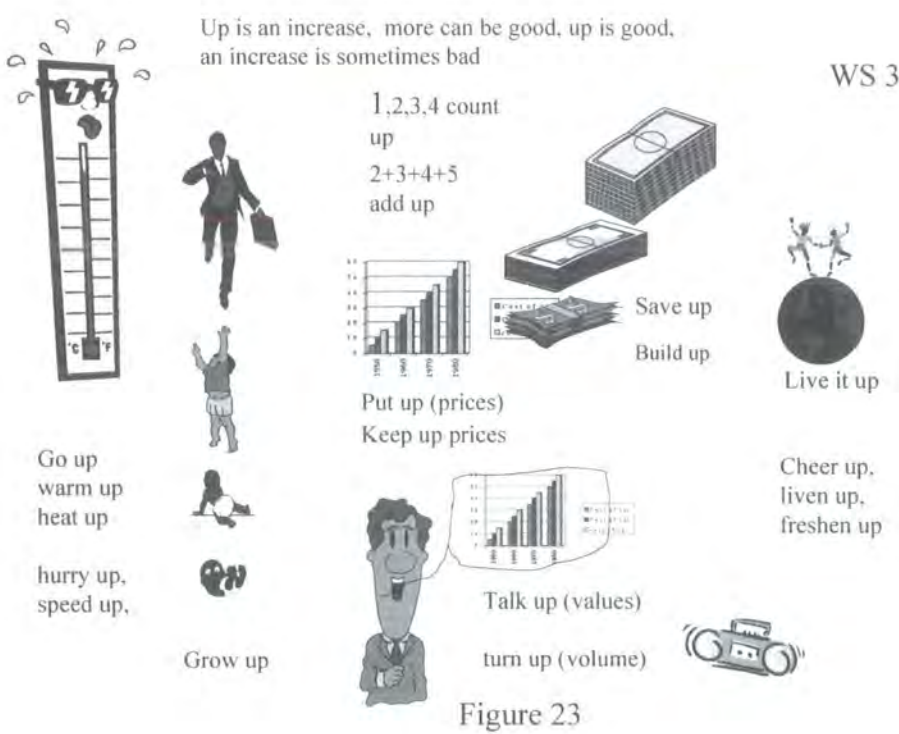


Figure 23

This worksheet groups its subject roughly into columns that with some backtracking typify increasing abstraction as one works from left to right. A base metaphor for verbs that use ‘up’ to indicate an idea of increase is given by the isomorphic relationship of the upward expansion of mercury in a thermometer to the notion of a ‘rise’ in temperature. Four sets of verbs are given, the first expresses ideas of a temperature increase, and the second an idea of an increase in speed, the third of size, through that of growth, and the fourth of quantity.

However, as said, ‘up’ as in ‘add’ or ‘count up’ may also be expressive of a final end point or an idea of completion. This is dealt with in the next worksheet, but its inter-

relationship with the idea of increase given here must serve as a reminder that the notion of a meaning that is metaphorically extensible entails an extension of the schematic frame from which its meaning evolves. This again shows how it is therefore difficult to deal with exact notions of schematic equivalence or reference when one schema may extend into another, perhaps through a point of transition such as is expressed here in a term such as ‘count up’.

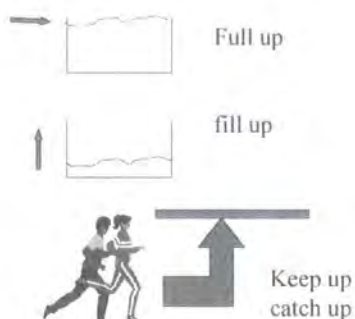
The next area deals with the accumulation of money or the ‘building up’ of capital and the last marks a significant extension of the notion of ‘increase’ ‘rise’ and ‘plenty’ to that of happiness with ‘live it up’ and ‘cheer up’. This last conceptualisation clearly overlaps with the one preceding it in that, in both, ‘up’ posits a static landmark or end-point whose attainment marks a degree of fulfilment or completion.

The fourth worksheet (figure 24 below) develops this notion of ‘up as accumulation’, first through the physical example of completion by filling up to a level then through an abstraction of the landmark as something mobile and rotated but existing in space nonetheless, for example ‘keep up’ and ‘catch up’. Underneath these expressions of accumulation, I have listed a set of verbs where ‘up’ connotes the achievement of a landmark that has been abstracted out of any spatial reference. The right side of the sheet shows how certain verbs develop this notion of ‘up’ as signifying a completed action but in two opposite ways, that of separation and union, ‘split up’ is thus followed by ‘make up’.

I have ignored how ‘make up’ of course also extends its verb stem more in accordance with its sense of fabrication or manufacture, as in ‘make up with lipstick’. Thus, somebody makes a new persona or ‘face’ for themselves and perhaps, thereby, ‘raises their status’ as if towards some point of self-completion. This complication graphically underscores how phrasal verb meanings, though they can be grouped and rationalised through an analysis of their particle, are also subject to an extension of the stem, sometimes as a result of its modification by the particle. Phrasal verbs are a complex area of meaning and full-scale rationalisation of their meanings according to underlying schemata, would be a daunting task. However, it is a task that could provide great benefits to the student.

WS 4

The end point is up



Freeze up, mist up, ice up, clear up,
clean up, mix up, tie up, use up, burn up,
dry up, eat up, heal up, do up, seal up
(time) is up.

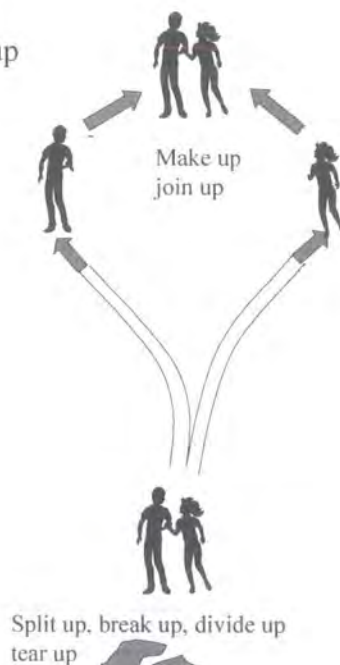


Figure 24

The fifth worksheet (figure 25 below) develops the schema of 'up is completion' by showing the rotation of the attained landmark in order to give the meaning of stopping or coming to a halt. The related verbs are given underneath.

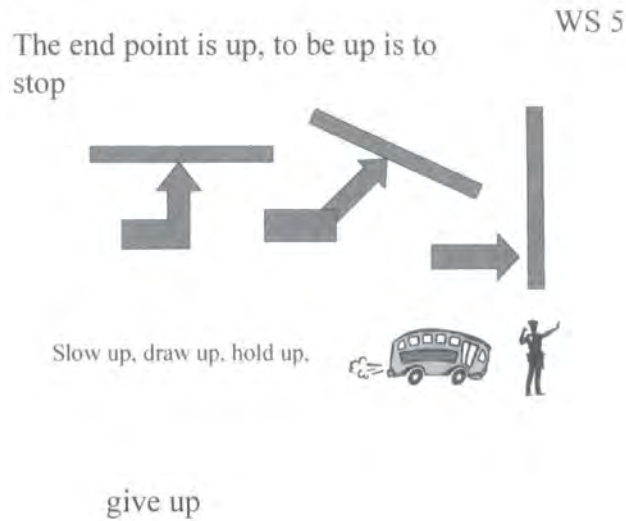


Figure 25

The sixth worksheet (figure 26 below) perhaps marks the most complex schema. The landmark for 'up' is presumed to be a visible surface. Therefore the related verbs refer to the action of bringing ideas or things to that surface. 'Dig up' is perhaps the most concrete realisation of this idea and therefore heads the sheet. The counter assumption of this landmark is that the revealed items were hidden or buried. Therefore one needs a grasp not just of the assumed landmark and schema but of related schemata associating consciousness with 'up' (above the surface) and unconsciousness with burial, being beneath or deep down. (Lakoff and Johnson 1980: 15).

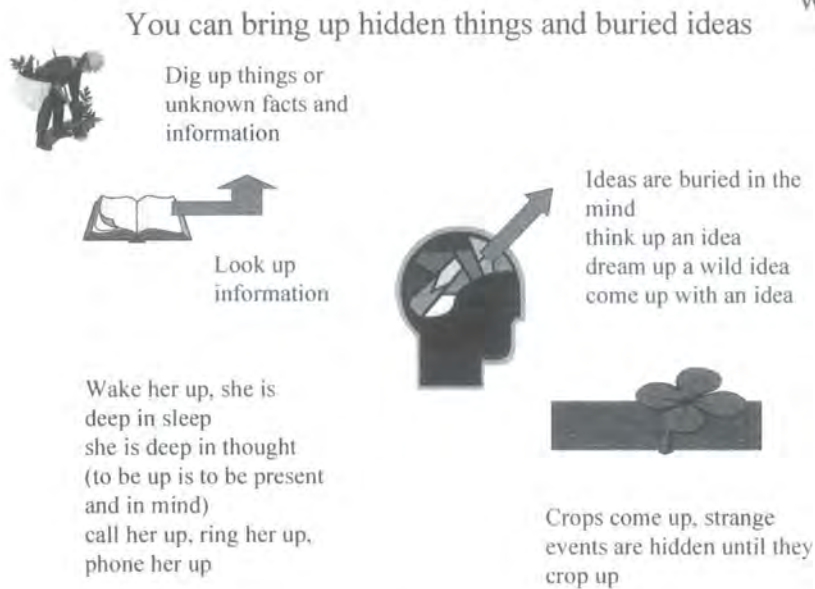


Figure 26

Finally, it must be made clear that there is no sense in which these worksheets could be regarded as self-study or stand-alone guides to the area in question. They are above all a regrouping of a difficult set of lexical items around the metaphor from which their meanings are partly derived. This regrouping does not of itself preclude the need for other forms of practice. As stated, teachers need to set up other tasks in which these verbs are incorporated. These can take the form of the chain stories mentioned above. Another approach is to work with textual synonymy, where the teacher tries to elicit or dictate a text that deals with the thematic area of some of these verbs but eschews their use. The students then rebuild the text around their knowledge of these verbs.

Lastly, I should stress that I have given only one particle, 'up' quite extensive treatment. The objective as in most of what precedes and follows is to foster awareness of an approach to language and not to give an exhaustive account of how to tackle a single area. Clearly teachers can go forward to build on the work already done in this respect and to consider other ways to elucidate this difficult but central area of English. The key point is that prepositions and particles do not represent a random method of constructing meaning in English, where every instance must be

treated as separate from every other. They can be grouped according to metaphorical theme and can be learnt as evolving from common schemata.

4.8 Implementing the approach: towards an image-schematic approach to student errors

4.8.1 Towards an image-schematic approach to student errors: introduction

The previous sections looked at how a teaching approach built out of our sense of meaning as created through metaphor can help to:

- 1) Illustrate specific language points and improve students' grasp of the same.
- 2) Forge a link between the way in which linguistic meaning has been constructed and the manner in which it has been learnt.

I illustrated these points with an outline of specific techniques and a recollection of their impact upon different classes. My data source was the nature of events in specific classes. I now want to turn to a very different source of information in order to show how teachers can start to understand student errors from the perspective of the conceptual metaphors by which they have been produced. I will also look at how we can use this understanding to help students to find the appropriate schema and its correct realisation. Again, it should be understood that in this last section, I am broaching a topic that may require more extensive treatment than can be properly elaborated here. In order to explore fully the image-schematic basis of student errors we will need a study of the relationship between the conceptual metaphors inherent in different student L1s and the errors they make in the L2. My intention, here, is to broach what is potentially a quite new area of study and a different approach to error correction.

Initially, error analysis was an activity associated with the now outmoded approach of Contrastive Analysis (e.g. Lado 1957). Contrastive Analysis was based on the behaviourist hypothesis of habit formation. In order to reinforce the new 'habits' of a target language, research was oriented towards the question of how those 'habits' differed from those of the student's mother tongue. The contrastive approach became unfashionable with the demise of behaviourism. Further, many of its predictions were held by teachers to be obvious or uninformative (James 1998). The practice of error analysis, on the other hand has attempted to describe errors not as a result of transfer

but purely in terms of their failure to realise the forms of the MT, and thus in terms of the MT alone (James 1998).

Selinker's (1972) concept of an interlanguage also redirected linguistic and pedagogic interest towards student errors. In this instance, errors were viewed more positively, not so much as a result of the failure to achieve the forms of the TL but as evidence from which one could construct the unstable language knowledge that the student had achieved at a given point in the learning process.

Generative approaches to SLA (Second Language Acquisition) have also resulted in a number of studies that analyse learner errors in order to demonstrate how they may or may not have access to UG (Universal Grammar). For example, Gass's (1979) accessibility hierarchy holds that unmarked forms will be acquired before those of the marked ones (3.5.2.3). This might be taken as evidence for how the acquisition of forms existing in the UG will occur before others. In another example, Bardovi-Harlig (1987) refutes this claim with a view that 'preposition stranding', (placing the preposition at the end of the sentence) occurs before the marked phenomenon of 'piedpiping' (placing it at the beginning).

Because the approach put forward is looking at errors from a new perspective, that of their conceptual origins, I have no method derived from the area of error analysis in which to ground this study. However, the analytic approach is largely one which is derived from other studies of conceptual metaphor, beginning with Reddy (1993: first published 1979) then taken up by such as Lakoff and Johnson (1980), Langacker (1994) and Lakoff and Johnson (1999). This approach is largely intuitive since the nature of analogical thought makes it difficult to establish objective criteria that are able to determine which conceptualisation a given metaphor will derive from.

The approach will take as its starting point the assumption that there are two forms of error that can be described through an image schematic approach to error analysis:

- 1 Errors that occur because the student has selected an image schema that is not preferred by the target language for the topic in question.

- 2 Errors that occur because the student has selected an appropriate image schema but an inappropriate realisation.

This assumption is not overly informative as there is currently no way of knowing whether the mis-selection is in response to a different entailment of a correctly identified schema or to the wrong expression of the same. To say categorically that the schema is correct and the instantiation as language wrong is to assume that there is a sure method for prising apart language and meaning (or the conceptualisation on which a given meaning is based), and clearly there is not.

It is possible to assume that this mis-selection of a form or schema will have three causes. The first two are:

- 1 The generalisation of a form that has been encountered in a context for which it is appropriate towards one where it is not.
- 2 The importation of a form or structure from the student's L1 into the L2 when this is unrecognised by the L2.

I would suspect that the factors that can cause an error may intertwine to produce any given instance. In this discussion, therefore, I will not consider errors in relation to the schematisations preferred by the mother tongue. This would first, require a lengthy analysis of the mother tongue itself. The analysis would also be overly negative in its treatment of error because it would focus on the nature and origins of the error itself as opposed to the means through which it can be corrected. A more positive and pedagogical approach would help enhance the student's understanding of why a TL (in this case English) favours a particular construction and how that schema can be generalised or made more productive in helping them to avoid other similar errors. I will, therefore, broach how we might make use of these insights in order to produce materials and practice routines that steer students towards correct schematisations and appropriate realisations.

My interest in constructive, schema-building routines means that I give only cursory thought to the third kind of error. This type of error is:

- 3) the construal of one L1 form as morphologically (phonologically) analogous to another when it is not

From my perspective over-generalisation is more interesting as an instance of how the analogy-forming mind will operate when confronted with new materials than as an example of how to adopt remedial strategies that are tuned to this mental capacity. I can stress the need for teachers to work with traditional groupings of phonological analogues (sing/sang, ring/rang). I can suggest that they emphasise the exceptions as a type of irritating coda (sing/sang, ring/rang, *bring/brought*). However, these types of analogical clusters are different from those that will be discussed here. Equally, a student may over-generalises an adverbial form as in 149, below:

149 I practise hardly (author's data).

either because the form 'hardly' exists with another meaning and may have been heard in that context (I *hardly* managed it) or because they have over-generalised the 'ly' morpheme itself. The teacher may find that a more successful correction strategy will be to set this amidst the regular forms to which it forms an exception. They could also find some other way to close down the student's instinct for generalisation and push them towards memorising the form as itself rather than the instantiation of a rule.

A type of over generalisation that roots in an over-generalisation of syntax may be when, for example, a student with L1 Arabic, L2 English and no other language uses 'precise' as a verb as in 'Yes, I need to precise the analysis' (author's data). Arabic does not allow this form, unlike some other languages such as French. Therefore the error is not a result of transfer. English is tolerant of one part of speech, a noun, 'access', for example, being used as another, a verb, as in 'to access the computer'. The student has made a generalisation on the assumption that adjectives can be treated with equal flexibility, as occasionally they can, as when we '*calm* the crowd' or '*blank* out the screen'. For me, the interest of such over-generalisations is more in how they provide an insight into the analogy-forming mind, and less in how they suggest correction strategies.

In the following analysis, I focus on the first two categories of error in so far as these can be separated out. I select short extracts from texts produced by FL users in order to illustrate each point and I discuss why these errors can be categorised in the way I have suggested. The extracts are either taken from the written work of students, from transcriptions of their tape-recorded speech or from notes made at the time of the subject's speaking. In working through a randomly selected text, I would analyse the errors in the order that they were encountered, in the text. Those that did not yield any substantial insight were disregarded. Having found one or two significant errors in a text, I would then turn to another. I should stress again, that my objective, here, is not to set out categories of error founded upon statistical analysis nor even to engage in a contrastive exploration. I am laying down the basis of a new approach to error upon the basis of the conclusion about language and thought that I have deduced.

4.8.2 An image-schematic approach to student errors: the event is location metaphor.

I begin by looking at example 150, below:

150 I started play golf twenty years ago

Sentence 150 omits the preposition 'to' with the verb infinitive. Because of the speaker's low level, it may be that this is as a result of mother tongue interference rather than the common confusion of begin/start + verb + ing with the infinitive, begin/start + to verb (infinitive). The speaker may have no knowledge of these alternative English forms.

Yet the error may become more interesting if, instead of accepting that it occurs because the L1 and L2 grammar are different, one first asks why the infinitive in English is constructed with a preposition indicating spatial motion 'to'. It could be that the infinitive is actually realising the 'event as location', identified by Lakoff and Johnson (e.g. 1999). According to this view, the verb, as representing an event or action, is constructed as a place towards which we are moving.

Also, there is a more fundamental, ‘time is space’ schema at play. This metaphor means that we express our temporal movement towards an action as a spatial one. In fact, as a user of English, I do not know how to describe this in lexis that is not of a spatial origin.

Therefore, it may be possible to see the error in 150 as arising from a failure to select the appropriate schema out of which the English ‘to+ infinitive’ is constructed. It may be that the learner would have been helped towards an early and appropriate schematisation if they had used a sheet such as the one given below (figure 27). Alternatively, this could be handed to students who make such errors so that they may collect examples around the image schema from which they arise

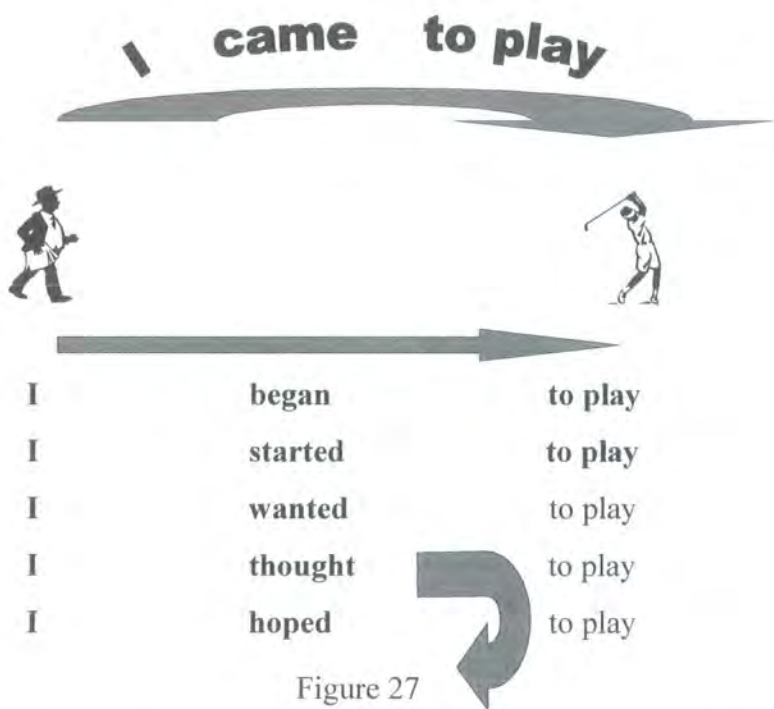


Figure 27

The motion towards is indicated by the top verb phrase, which also has a metaphorical sense and expresses causation through the same ‘path’ metaphor. The verbs below are indicated more strongly as an approach towards an action. The last three, which may refer more to an interrupted approach have had another arrow inserted to show the

possibility of a diversion before the arrival. The verb-state has been taken out of bold to indicate that it is a hypothetical destination.

The above analysis points out how a correct application of ‘the path’ image schema could help a lower level student grasp the construction of the ‘to’ + verb (infinitive) in English. However prepositional errors with the infinitive would generally be considered elementary and are probably far from being the most common since the infinitive is often learnt as a ‘to+verb’ construction. I will now look at a more advanced error involving prepositions or particles.

4.8.3 Towards an image-schematic approach towards student errors: ‘up to’ is a confrontation, ‘with’ is ‘against’.

Consider 151, below:

151 The company has to expect market growth to face with the competition

‘With’ normally connotes spatial proximity and by extension possession and belonging, as in 152:

152 The woman with a crocodile handbag

‘With’ also had the earlier meaning of ‘against’ (Lindstromberg 1997). However, the closeness of these meanings may derive from the fact that they both indicate spatial contact as can be seen from a phrase such as ‘the ladder against the wall’.

‘Face’ and ‘face up to’ are both built out of the primary expression of direction through body parts. ‘Turning the back’ signifies retreat, running away and hence, by extension, ignoring what is happening. ‘Facing’ has the meaning of looking forwards (in the direction of the face) and hence of dealing with issues as opposed to running away from them. ‘Up’ may have the positive connotation of a raised posture as in ‘get up and do it!’.

Then the student has construed confrontation as 'keeping up *with*' or 'keeping pace with' or the idea of against, as in 'fighting with', instead of the staring down of an opponent that precedes a conflict. The manner in which a correct and confrontational schematisation will find expression in the appropriate phrasal verb can be shown in the following way.

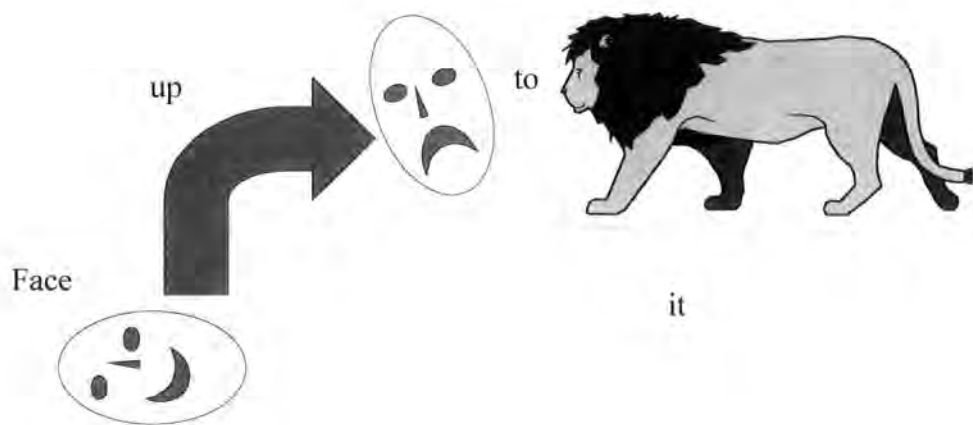


Figure 28

As a contrast, 'keep up with' and 'keep pace with' can be shown as follows:

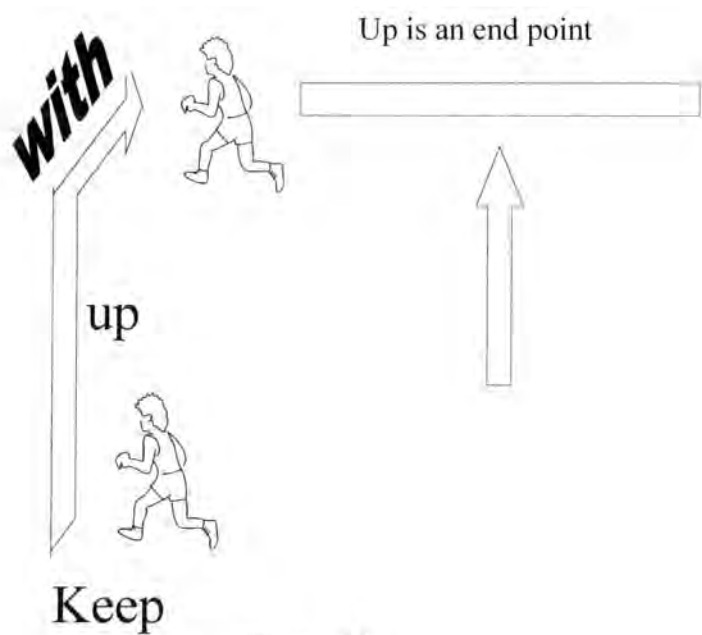


Figure 29

Therefore, what has occurred here is that the student has constructed the notion of 'face' out of a schema of spatial proximity to the issue (or its reification) that must be confronted. This may be because they have 'chunked' 'up with', or memorised it as a collocation. But in fact the construction does not simply imply proximity but movement towards the same. The correction emphasises the idea of that movement.

4.8.4 Towards an image-schematic approach to student errors: when time is not time but space

I have already discussed how conceptual metaphor takes a role in the construction of discourse. By the same token, the choice of an inappropriate schema can also occur within the frame of 'Reference', raising issues of text construction. Consider the two sentences below:

153 The education **of** Ultima Thule may be divided into two **parts**. The first **one** **when** all students are taught the same subjects starts at the age of three years and ends at the age of thirteen years.

The anaphoric reference, here, is of 'one' to 'part'. As has been said, most temporal constructions are directly or indirectly a spatial conceptualisation. 'Part' typifies this. It is a noun with a spatial reference that can also be used to express time. Thus, one can talk of 'the right part of the day'. However, in this instance, the 'frame' or 'domain' of meaning is that of a system or organisation that has temporal stages. Even if organisations control temporal processes (e.g. spending 10 years at primary school) the organisations are more commonly conceived of as spatial entities, particularly in their diagrammatic representation. As I have acknowledged, time and space are conceptually intertwined and many expressions of time derive from or still express spatial relations. Yet, 'when' has developed a largely temporal reference whereas 'part' is still predominantly spatial. It may be that the writer is using 'when' because they perceive 'one' as referring to a 'part of time', yet their reference is to an organisation that is largely perceived as a structure occupying space. Consistency, therefore, should oblige them to think of 'one' as a reference to a section of space.

Therefore, the correct relative pronoun in this case would be ‘where’ as in the ‘part where’. The error is admittedly a fine judgement because ‘time’ and ‘space’ are so closely inter-related. However, it raises interesting issues about the spatial construction of discourse.

4.8.5 Towards an image-schematic approach to student errors: the possession of the object

The first sentence in example 153, above, also contains another inappropriate schematisation that is revealed by the first preposition ‘of’, ‘the education of Ultima Thule’. This is wrong because the writer makes it sound as if it is the country, Ultima Thule, which is being educated. It reads this way because nominalised processes, as in ‘the storming of the Bastille’ or ‘the rape of Lucretia’ are normally treated as affecting the object to which they belong. These structures would seem to emerge from a conceptual metaphor of ‘objects owning the processes that affect them’. This explains why English would allow ‘the education *system of* Ultima Thule’ because the Process has been taken out of the phrase as a nominalisation. The sentence can also be corrected by giving the Process, ‘education’ a ‘place’ ‘*in*’ which to unfold as in ‘Education in Ultima Thule’.

4.8.6 Towards an image-schematic approach to student errors: problems are impediments

An example that may do more to unveil the schematisations through which states are conceived can be found in 154, below:

- 154 The first problem is the comprehensive school because every child has variable ability
- 155 The first problem occurs in the comprehensive school because every child has variable ability
- 156 The first problem occurs at the comprehensive school stage because every child has variable ability

On the surface, 154 could be read as correct. It forms one of those types of error that may be dismissed as ‘somehow not quite English’. However, the reason why this is slightly strange lies in the fact that the student is mistakenly implying that the school itself poses a threat to the completion of an educational process when this is not the case. The writer mistakenly implies that the school *is* the problem, perhaps because of its architecture, when they mean that the problem arises in the comprehensive school stage of the cycle. I know this because the task involves the description of a diagram that makes this point clear. Thus, in order to express the diagram’s meaning, the school has either to undergo a process of abstraction and become the description of a stage or it has to be identified as the location of a problem. A correct rendering of this sentence would probably be either 155 or 156 above.

In this instance the selection of the image schema is complicated by the possibility that the student may not understand the distinct nature of the meaning they want to express. The student needs to know the difference between the occurrence of a problem in a place or at a stage, and the identification of that place with the problem. This distinction is also an image schematic issue. It presupposes the activation of the ‘problems are impediments’ conceptual metaphor (Lakoff and Johnson 1999) as can be seen in the idea of a ‘problem’ or ‘issue’ that arises in a place to be ‘surmounted’, if it is not to prevent forward movement. This distinction and some of the language issues involved could be illustrated to the student as follows:



The place is the problem



The problem/issue *arises*
in the place and we must
surmount or overcome it

Figure 30

In this instance, the problem is represented as a place by the common metaphor of a maze, while the second drawing tries to show that the problem is not in fact the maze or the place itself, but a barrier which arises to impede forward movement. A barrier must have a location. As a form of 'barrier' the problem is located in the place where it occurs.

4.8.7 Towards an image-schematic approach to student errors: when up is not more.

Many of the above examples concern how English uses prepositions to express its structuration of abstract and grammatical meaning through the schemata of spatial relations. My assumption has been that the error shows a failure to understand the schema out of which English has been built. In the next example, that assumption does not hold because a plausible schema for the context has been evoked but with an incorrect realisation. Consider 151:

- 151 to prevent it (a small incident) from coming up to a large one (author's data:
BBC News 12 June 2000)

English commonly exploits the universal schematisation of ‘up’ is more (Lakoff and Johnson 1980) as in ‘we must raise productivity’. This schema, however, may use different landmarks. Thus, one considers ‘up’ as an increase towards a given state or ‘up’ as an increase away from a given state. Arguably here, the correct phrase could be ‘*developing into*’ which presupposes movement along a horizontal axis *towards* a ‘state as location’ and perhaps *away from* (*de*) another. Therefore, one might be tempted to say that 157 is an example of an inappropriate schematisation. However, English does employ the ‘up is more’ schema in this instance as in ‘the problem blew up into something larger’ or the lexically different but schematically similar, ‘the problem grew into something larger’. In this last case, one can see the use of the ‘up is more’ schema ‘grow’ as it overlaps the biological assumption that ‘growth is increase’. At the same time one finds the assumption of a hypothetical form that ‘growth’ is struggling to occupy ‘grow into’ as if in accordance with a platonic view of plant morphology where growing things are occupying a predetermined form as opposed to creating it. There would appear, then, to be a mismatch between the selected schema and the lexis with which it is realised. In this case, a correction strategy could focus on the tie between given types of schemata and their realisation in the lexico-grammar. One might thus illustrate, ‘develop into’ as motion on a horizontal plane and ‘grow into’ as motion on a vertical one, while showing how each assumes a hypothetical form that the growing problem is going to occupy. Additionally, we could link ‘come up’ to things that are buried or sunk. Since, in this context, the problem is already evident there is no surface towards which it can be raised, just a larger form that it can assume.

4.8.8 Towards an image-schematic approach to student errors: ‘I six times hit’: word order.

The following errors were collected from an elementary Korean student talking about golf. Korean is an SOV language but interestingly the students transfer of an SOV word order into English is most common outside the main clause. It is as if he is thrown off his ability to reproduce English word order by the difficulty of handling a more complex sentence structure.

- 158 If I start line hit, five times my ball in hole is par
159 Motion is very difficult so Icoach's motion see

Interestingly, SVO languages have a correspondence between their word order and the sequence of actions in a typical cause and effect chain. As expressed by Langacker's (1994) billiard ball metaphor, the subject, 'the white ball' moves first and then 'strikes' the 'red ball' which moves. For teachers of English then, the issue is one of using graphic images, 'cars striking cars', 'people hitting people', or whatever, to help students map a sequence of actions onto a word order, all while trying to avoid the trap of imagining that SVO is more natural. For teachers of Korean or Japanese the issue is more complex for it involves suppressing a temporal sequence in favour of a syntactic one, or at least perceiving how a syntactic order evolves according to constraints that are not imposed by the sequence of the events they imitate. Word order problems, then, can relate to trying to translate the syntax of a given TL back to the schematisation of events that it either imitates or transforms.

4.8.9 An image schematic approach to student errors: conclusions

James (1998) suggested broadly that there are three approaches to student errors. The first is to perceive them as revealing how the student's MT (mother tongue) differs from the TL. The second is to describe the errors in terms of their failure to realise the forms of the TL. The third is to view them not as failings at all but as indicative of a type of language knowledge that the student has constructed, of their inter-language, in other words.

My interest here has been to redirect the teacher's interest towards how some errors may evidence a failure to understand the schematic basis of the target language and the realisation of this to the forms that language adopts. I have assumed that these schemata can be described as the (conceptual) metaphors out of which abstract meaning in the TL has been developed. A secondary objective was to show that sometimes a schema may be grasped or correctly assumed to be common to both the MT and the TL. In these cases, the problem may lie in an incorrect realisation and

help can be given if the correct form is embedded in its schema in a way that both makes it more memorable and which shows why it has come to take the form that it has. However, I have pointed out that in practice this type of distinction may be difficult to make. In the example studied, it was evident that English retains one schema, 'up is more' but prefers to express change through the metaphor of the assumption of a shape, or at least in a conjunction between this and a notion of vertical movement. In other words, errors that appear to show an inappropriate lexico-grammatical realisation of an appropriate schema may actually be employing the wrong schema for a particular context or type of expression or at least the wrong entailment of the same. I thus showed how a change of state is expressed through a metaphor of organic growth 'into' a hypothetical form, but how growth, by its nature, also subsumes the metaphor of 'up is more'. In the case of word-order the contrast between schema and realisation was more clearly made, since it is clear that, whether I am Korean or English, a ball must strike another before transferring energy to it. Yet that order of events is not replicated in the same way in each of these two languages.

The point that emerges then is that one should not undertake this type of analysis with an overtly contrastive goal. The question is not whether a schema has been correctly redeployed but incorrectly realised. The question is how the student can be steered towards an understanding that will help them to construct an implicit knowledge of the correct form by first showing how they can explicitly embed that in the schematisations by which it was produced. The more general conclusion, is the one which emerges from this thesis as a whole. This is that teachers need to think metaphorically. Teachers need to think about the schematisations that underlie language so that they can rationalise the principles of its construction in a manner that is less intellectually arbitrary and is rooted in a more powerful concept of affect.

4.9 Pedagogical Explorations: conclusions

The understanding of metaphor that I sought to summarise can take language pedagogy in a new direction. My broadest conclusion is that our new understanding of the nature of meaning construction can allow teachers to think less about social relevance and more about how pedagogy can appeal to the facets of mind that underlie language. Social relevance is ephemeral unless it is perceived in a state of interaction with the mind that will carry language through time. We can develop this sense of a dynamic entailing mind as a social construct and society as a mental one (Vygotsky 1978). We can then perceive the social contextualisation of language as the provision of an analogue to as yet unconstructed zones of use. We can also think about how to relocate the exemplification of meaning in the schemata from which meaning has emerged.

However, it is also clear that teachers make a quite constant, intuitive use of metaphor and expect that their students will do the same. My own exploration of this topic has partly done no more than draw attention to successful teaching activities that I already use. In this zone, I have cited some early material such as Moskowitz (1978) in order to show how this understanding has been with us for a considerable time. I have also noted how TPR routines involving classroom movement are often metaphorical in nature. A further conclusion of this study is therefore simply to reinforce what is already intuitively done and to provide a clearer rationale for why it works.

The forging of a conscious link between the metaphors through which a language is conceptualised and through which language can be explained has yielded a further quite simple insight. This is that, in doing this study, I became more aware both of my own metaphor making processes and of those implicit in the language I have been teaching. My conclusion is a very general exhortation to teachers to think metaphorically. Such modes of thought enable them to explain what previously seemed to be inexplicable, to suggest why 'face up to' has acquired the meaning that it has, for example. Metaphorical thought can also stimulate a search for meaningful forms of explanation and illustration, looking at how the division of classroom space can be mapped onto a language's construction of time or at how emptying a box of its

intellectual contents can illustrate the idea of deduction. When discussing this broader consequence of a metaphor-based approach with both students and colleagues, it becomes clear that this very general mode of analysis can lead to some of this study's more successful pedagogical events.

Once the teacher has begun to explore their metaphor-making capacity they can re-examine the potential of their learning environment. In this area, it may be that this study has a lot to say to those who are exploring computer assisted language learning. A more extended sense of spatial metaphor could reinforce the explanatory power of programmes that deal in grammar teaching, for example. We could use diagrams of the concrete to help students construct abstract meanings. This could also hold for those who would enhance work already done in the area of metaphor, analogy and mathematics teaching by helping to establish better-grounded explanations in CAL or WBL (web-based-learning) software.

However, at root, this re-examination of the role of metaphor is largely without resource implications. Space is universally available and spatial relationships are a potent vehicle to aid the understanding of how language expresses time, cause and effect and many other types of relationship between abstract and concrete phenomena.

A further, quite broad conclusion is that if we admit to the notion of metaphor-based meaning construction that has been put forward, we can no longer retain the idea of an isolated language processor in the mind. This makes linguistic and input based positions on second language acquisition difficult to sustain. Cognition and learning are facets of each other. The interference of cognition in language must therefore make it unlikely that language can ever be acquired without the support of cognitive processes. As this interference becomes open to conscious manipulation and control then it will become a facet of what is normally called learning. This is not to deny a role to unconscious or unfocused learning in language or any other area. However, it is to assert that it will not suppose the activation of some dumb and purely reactive linguistic processor so much as a larger array of cognitive processes many of which we can analyse then consciously deploy. Therefore, I would make two related points:

- teachers of post-pubertal learners should see their primary goal as the creation of an environment oriented to learning not acquisition
- the pedagogical direction of this study is towards learning and it should not be faulted on grounds of a failure to foster acquisition

This is not in any way a statement that a stress on learning entails a return to some teacher-centred, translation based classroom. Input-based approaches do have the merit of stressing the primacy of using the target language in the classroom. However, a more cognitive view should also make the very basic point that languages are systems whose survival is testament to our capacity to learn them through exposure. This suggests that we could still be equipped with dormant strategies that require exposure to a language if they are to be reawakened and used.

The use of the target language remained pre-eminent in my own classroom experimentation with the methods suggested by this approach. Nonetheless, I did observe in myself a drift away from the purely facilitative mode that may be presupposed by 'strong' communicative theory.

In Scrivner's (1998) ARC' (Authentic, Restricted, Clarification) model, for example, teachers may initially facilitate exposure to a given area of language before helping them towards identifying the nature of its construction and its context of use through a staged intervention. The current UCLES (University of Cambridge Local Examinations Syndicate) CELTA (Certificate of English Language Teaching to Adults) still makes rigid prescriptions about reducing TTT (teacher talking time). By this token, a language class is often rated as successful if it runs with only occasional teacher involvement, treating the teacher as a dictionary or grammar book to be consulted on the odd occasion when communication breaks down. The teacher's work is supposedly done outside class or in the opening and closing stages of the activity. But this pedagogical retreat supposes a more authoritarian grip on what occurs than would result from a dialogic but more active presence. Such a dialogic presence emerged as a facet of many of the techniques I sought to employ. It is a presence that means cajoling and pushing the class this way and that, sometimes negotiating a

change of direction and at other times calling a halt to explore an unexpected point. I would call this teaching style more participatory than facilitative.

A participatory style entails that the teacher is neither follower nor guide. It supposes that students and teachers are partners in an analogical enterprise, opening new directions for each other and remaining alert not to the dangers of digression but to the possibilities of the same. There is a suggestion of experimentation in digression and an acknowledgement by all that some of the newly discovered alleys will be blind. Teachers may be too well conditioned to treat successful lessons as time that passes according to a planned and therefore seamless passage from one phase to the next. However, time may be more memorable when the passages are turbulent and the class feels challenged by a sudden moment of opacity in the lesson's structure.

Like many trainers, I tell new teachers that they must learn to 'think on the run' and to be able to find rapid explanations for the unpredictable language items that a given class will produce. I would now stress how participatory teaching is about being alert to the opportunities that arise from getting lost on a detour. It means being able to help the class orient themselves amidst the strange topography that such detours can suddenly reveal.

5 Conclusions and Suggestions for Further Study

This thesis had three broad objectives in theory construction. The first was to explore the development of current theories of metaphor and to examine whether it was possible to achieve a view that was clear, consistent and available for integration into an approach to language teaching. The second was to examine how such a concept of metaphor could influence our approach to teaching from a general perspective. The third was to explore how that approach would translate into actual classroom practice. Although the first of these objectives supports the second, and the second, the third, each is sufficiently different from the other to merit separate sets of conclusions and suggestions for further study. I will therefore treat each of these three objectives as separate, while also showing how they relate to each other.

5.1 Towards a consistent concept of metaphor for language teaching and learning: conclusions

I looked briefly at the Cartesian mistrust of metaphor as disruptive of its attempt to produce a univocal discourse where language could represent the world as if it were free from the subjective interference of mind. The aspiration was that a word such as 'stone' would have the same certainty and the same constraints as the equivalent object will have when it is in the hand. Figurative language blurs the conceptual boundaries between objects and makes them subject to the manipulation of the subjective mind. Therefore, it interferes in the world's self-representation, putting at risk the stability of what we deduce from a given observation with the possibility that the stone in one person's discourse is not the same as that of another.

The more recent traditions of logical positivism, formal semantics and generative semantics were treated as developments of the Cartesian tradition. Tarski's (1956) truth-condition semantics, for example, can be viewed as an attempt to tie the meaning of a word or statement to the conditions prevailing in the world that it does or does not represent. Metaphor is problematic for this enterprise because it is disruptive of the meaning and hence of the frame of reference of the statement that would thus be tied down, even before that process has begun. We cannot, for example, be certain, that an apple is only an apple, if it could also be a reference to somebody's head. Elgin (1983) may argue that a truth-condition analysis provides a framework for metaphor analysis if we accept that a word can have a meaning that is other than its ostensible, primary one; if an apple can mean a head, for example. However, this admits instability into the semiotic system, which perhaps undermines the primary objective of this type of formal analysis.

It might be tempting to draw a reverse conclusion. The discipline of formal semantics attempts to show how we construct and manipulate a stable system of meanings according to logical principles. Formal semantics can identify metaphor because metaphor disrupts the stability of those meanings. Metaphor arises when we say

something that is true and meaningful that is not in accordance with its truth conditions. However, we have taken away the underlying assumption of this argument. I can say 'That construction is a house', and that the statement is meaningful if the indicated construction is actually a house. But metaphor posits that a house may actually be a house in one person's conception of that term but not in another's. The reference could actually be some hybrid affair that others would call a shelter and others a tent. 'House' is extensible. In short, metaphor posits that there is not really a stable system of categories for metaphor to disrupt. This is in accordance with much recent research on category construction and on Lakoff's (1987) notion of a radial category in particular.

One can of course over-emphasise the instability of meaning. Evidently, most users of English have a shared sense of what a 'house' generally means. If they did not, communication would be impossible. However, that shared sense is not built up from a shared set of features to which house does or does not correspond. It is probably extended from a prototypical image of a house, encompassing different examples according to the culture, the individual and their context.

Furthermore, if it becomes difficult to assert where a category begins and ends, then it also becomes difficult to know where the literal usage of a word begins and ends. This can also apply to how we analyse a sentence. If I say, 'that construction is a house' and refer to a hole in the ground, it is not just the meaning of house that is at issue. 'Is' also becomes problematic. It cannot mean '=' because houses do not '=' holes. Even the subject, 'construction', is not left untouched. To my mind, constructions connote structures that rise from the ground not ones that descend into it. I have called this a 'ripple effect'. The ripple effect makes it very difficult to locate a metaphor within specific words or even in a specific sentence.

Therefore, I have three inter-related points:

- 1) metaphor threatens the security of deductive argument

- 2) metaphor is not an evident contrary to a use of language that is deductively or empirically true
- 3) a metaphor is not confined to specific items of language

These three points yield another more general cognitivist conclusion (e.g. Gibbs 1994, Lakoff and Johnson 1999). We cannot really define a metaphor as a use of language at all. Metaphor is better seen as an operation of cognition that takes a linguistic, visual or auditory form.

Another more difficult point is that metaphor posits the mapping of one domain of meaning onto another. Such mappings may be schematised within us as conceptual metaphors. These conceptual metaphors:

- account for how we may conceptualise the different attributes of a topic through a common vehicle, treating communication as a conduit, for example (Reddy 1993, Lakoff and Johnson 1980),
- produce sets of metaphors for a topic with a common theme. Thus, the time is treated as a point or object in space in '10.00 pm is a long way off' and '7.00 pm is getting near'.

However, I did not subscribe to the view that we necessarily create and interpret metaphor through the relationship between a given text metaphor, '10.00 p.m. is a long way off' and a conceptual metaphor, 'time is space'. I suggested that the relationship between a text metaphor and a conceptual metaphor was one that had a sense of similarity at its core. Metaphors appeal to our sense of similarity. This sense is essential to category formation and hence to our survival.

The view of Lakoff and Johnson (1999) is that we create or interpret the metaphor by working it back to a schema through a process of entailment or cognitive 'inheritance'. My own suggestion, like that of Glucksberg is that these processes are in fact forms of feature matching and explain the discovery of different types of similarity. If 'love is a journey' we can entail 'love has a destination'. Love has a destination because a journey has a destination, this sharing of features between 'love'

and a destination is the basis of their being, in some sense, similar. Entailment thus explores the nature of the similarity. Clearly, the similarity is relational not physical.

In my discussion on metonymy, I concluded like Gibbs (1994 and 1999) that one could view metonymy and metaphor as similar in so far as they both map from a source domain to a target domain. As is traditional, I also noted that the relationship between the domains in a metonymy was quite different to the one found in a metaphor. However, it also became evident that there are very different types of metonymy. It would seem that a core or prototypical metonymy is a meronym or partonym. This was traditionally known as synecdoche. This type of metonymy is typified by the act of naming a cow by its head or a train according to the colour of its doors. The doors are attached to the train, the head to the cow. However, a more elaborate use of metonymy involves the treatment of this spatial relationship as metaphoric rather than literal. A relationship based on physical attachment becomes one based on conceptual linkage, as between a few trees and the wider forest they are held to represent. As this relationship loses all sense of contiguity we move into the domain of metaphor and must start grouping things according to their similarities. If there are basic prototypical similarity relationships as between twins or slightly different models of the same car, then there are stretched conceptual ones as between love and a journey.

Lakoff and Johnson (e.g. 1999) stress that the facts of our physical existence form a conceptual basis for abstract thought. We can see that in metaphor itself, the act of matching the features between different phenomena begins in establishment of physical and visual similarities and is then extended out into the abstract and relational domain. In short, metaphor is itself constructed out of a metaphor of similarity. Likewise, metonymy begins in contiguity then is stretched to a conceptual picture of the same.

Like, Glucksberg and Keysar (1993) and Glucksberg and Mcglone (1999) and Holyoak and Thagard (1995), I have also argued that similarity links metaphor into a form of class inclusion. Like a class inclusion statement a metaphor attributes one phenomenon to the category of another. We are saying that something belongs to a given family because it shares a resemblance with other members of it. A resemblance

could be visual, functional or relational. It is an attribution of common properties of some kind. It could also be an isomorphic relationship, where two things respond in the same way to a given intervention. In isomorphism, we find not so much a functional or relational similarity but an equivalence of response.

For our purposes, however, the most important conclusion is that ubiquitous presence of metaphor in language reflects an active metaphor-making mind. This has a set of radical but straightforward consequences:

- language has taken the form that it has because of the operations of metaphor-making mind
- as Petrie and Oshlag (1993) found, learning deploys a metaphorical capacity to model new knowledge according to whether it is like or unlike what is already known. Metaphor also finds an equivalence in the way the mind interprets new knowledge to itself
- the capacity of mind that extends language to cope with new meaning cannot be disassociated from that which uses old knowledge to create metaphors that interpret new knowledge to its epistemological system
- there is an interesting parallelism between the nature of language as a storehouse of past metaphorical processes and the learning mind as active user of these processes

5.2 A concept of metaphor in language teaching and learning: suggestions for further study

The foregoing conclusions are tentative and require further empirical exploration. There is a need for further study in many areas, but to my mind, the following could prove the most rewarding:

- 1) The issue of metaphor and category formation: Lakoff (1987) looked at some of the stranger examples of categories in language. The Japanese 'hon' for example, seems to group phenomena that are related only through being long and thin. One interesting line of study could involve the creation of false categories and asking subjects to deduce the reasons for the attribution of terms to each. Conversely one might ask subjects to attribute additional items to these categories then to justify their selection. One might thus explore how subjects dealt with category formation when its basis was overtly metaphorical.
- 2) Conceptual contiguity and relational similarity: it would be interesting to look at how well subjects group forms according to whether they are physically or conceptually contiguous and visually or conceptually contiguous. Reaction time tests might be useful in order to establish the physical relationship as the stronger, prototypical one onto which is mapped the more abstract search for other types of grouping
- 3) Metaphor, metonymy, literality and autism: work already done (e.g. Happe 1995) has established how the extreme literality of autistic language reveals the function of metaphor in more normal thought processes. Further work needs to be done relating studies on autism, category formation, generalisation and metaphor formation. While autism is now a much-studied condition, it seems less well connected to current advances in the area of metaphor and cognitive science. There is also the reverse consideration of how the lateral, metaphor-making capacity may impede that acquisition of the discrete processes of symbol manipulation and calculation at which higher-functioning autistics can be very good.

- 4) Analogy, hypothesis formation and interlanguage: more research into the basis of learners' suppositions about the TL, particularly in the mechanisms through which they represent it to themselves and the metaphors they employ as well as an analogy-based approach to how they construct it in relation to the L1. An anecdote from my own experience would be a useful basis for research. My son started acquiring French at age four after having been brought up bilingual English and Portuguese. I noticed that he intuitively used Portuguese lexis in French and asked him why. He replied that Portuguese was 'like' French. More work on such bilingual subjects would also be interesting in order to find which language is intuitively employed as an analogue when learning an L3. This would provide evidence for how a sense of analogy is employed in learning another language.

5.3 The relevance of metaphor in language teaching and learning: conclusions

My examination of the relevance to language teaching of my perspective upon metaphor had two phases. The first concerned a general discussion of how metaphor research as a key facet of current advances in cognitive research should affect the teaching and learning of language. In order to achieve this, it was essential to argue that we cannot see post-pubertal second language acquisition as a purely linguistic process that is achieved in isolated faculties of mind. I therefore built a case against a view that treats SLA as linguistic in the sense of being isolated from other cognitive processes within a faculty dedicated to language. This view is typified by the generative approach. This enabled me to stress the cognitive nature of the language learning process and to underscore its conscious nature. I thus prepared the ground for a view of learning oriented to a conscious arousal of interest in the metaphorical construction of language.

The second phase was an exploration of pedagogical methods. It did not set out as a search for proof as to their effectiveness. The objective was the elaboration of an approach into a series of classroom techniques. I assessed how useful the techniques were according to my perception of how the class received them. In line with common action research criteria, I also modified them according to the same criterion. I now set out the key features that have emerged from this two phased discussion and suggest how it could be carried forward.

5.3.1 The relevance of metaphor in language teaching and learning: conclusions: metaphor in teaching and learning theory

I found the linguistic view of acquisition to be unsustainable because:

- generative views of acquisition are contradictory in respect of their theoretical base

- linguistic views of acquisition are not supported by either ontogenetic or phylogenetic analyses of the role of metaphor in language development and change: metaphor as a cognitive process suggests an extra-linguistic influence on acquisition
- as Cook (2000) attests, language learning requires psycho-linguistic and socio-cultural analysis. It is inherently variable and unstable and cannot be reduced to a staged repeatable series of events calling for a singular method.

Because metaphor and metonymy have both been implicated in the processes of meaning creation in language and learning, it is clear that we need to give more coherent consideration to how they should be incorporated into teaching methodology. Their incorporation should not be as features that extend a task oriented to the achievement of a linguistic competence but as processes that can change how we think about the inter-relationship of language and learning. One change involves a consideration of how we can recreate the context of learning out of the image-schematic origins of what is to be learnt. Thus a tense built from the propositional schema of possession would be taught through the context of the same.

The core of any further studies would involve the construction and testing of a theory of language acquisition and learning that involved a full contribution from the areas of metaphor exploration discussed. I have attempted this only in the briefest outline. A fuller exploration of the following issues would be of great benefit.

A larger series of studies concerning the role of metaphor in acquisition and learning could be as follows:

- 1) The conscious use of metaphor as a cognitive process in the construction of new language knowledge
- 2) The unconscious or intuitive use of metaphor in the construction of new language knowledge

- 3) The relationship between metaphor formation and the generalisation of new knowledge
- 4) Further exploration of the relationship between the view of mind from which metaphor is held to emerge and the construction of language learning theory. For example, I have not touched upon connectionist views of SLA here (e.g. Ellis and Schmidt 1997). However, connectionist views emphasise associative patterns rather than rules (Mitchell and Myles 1998) and this emphasis is more sympathetic to the view of metaphor with its tolerance of vagueness and imprecision as opposed to harshly circumscribed meanings or plus/minus semantic computations.
- 5) A more profound exploration of the links between metaphor, affect and learning. Our new understanding of the ubiquity of metaphor in language has placed emphasis upon its structure and its relationship to core image schema. The treatment of metaphor as a common event has distracted somewhat from why artists make such constant use of it. It would be interesting to know more about why it can make an emotional impact and how that impact can be used to enhance all structured learning.

5.3.2 The relevance of metaphor in language teaching and learning: conclusions: metaphor in classroom practice

A final pedagogical point is that trying to re-locate an item that is perceived as 'grammatical' within its image-schematic roots is a more problematic task than dealing with lexis or related issues of text structure. This difficulty in grammar may originate in a quite fundamental difficulty with the grammaticalisation thesis (e.g. Traugött and Heine 1991) and the approach of Lakoff and Johnson (1999). I have described how studies that take metaphor as their central plank will tend to overemphasise the instability of the semiotic system (5.1 above). A further point is that in taking language back to the conceptualisations on which it is based, we will constantly emphasise the concrete and the physical. Such an emphasis may under-stress the reverse process of abstraction that has also motivated the development of

language. The issue is not how far abstract meaning takes form in or is created out of concrete metaphor. We can accept Lakoff and Johnson's (1999) quite radical view that abstract structures are discovered as an entailment of concrete metaphors. However, we are still left with the problem of what motivates that tendency to abstraction either generally or within the specific metaphor through which it is realised. In short, we would appear to have an abstractive tendency that is treating the physical world as its plaything. It may be that the strength of that tendency has taken some facets of language too far from its image-schematic origins for it to be clarified by being relocated within them. But that is not a question I can begin to answer here.

5.3.3 Metaphor in classroom practice: suggestions for further study

Since this thesis is an exercise in theory construction, it clearly leads to various ideas for extensive empirical study. Even so, before such studies could be constructed with any degree of success it would be invaluable to devise, try out and adapt a clearer and more extensive set of techniques. These techniques could be adapted according to the following categories:

- 1) Fostering an understanding of lexis through conceptual metaphor.
- 2) Learner-training in how to identify conceptual metaphors in relevant areas of study and how to mind-map lexis and idiom accordingly.
- 3) Identifying the conceptual underpinning of language 'chunks' such as collocation, lexical phrases while using concordances to identify metaphorical and non-metaphorical usage (why we say 'focus on' rather than 'focus in', for example).
- 4) Exploiting the larger conceptual metaphors that underlie written text construction: the argument as dialogue, for example.
- 5) Understanding and exploiting the use of metaphor to create cohesion in text.
- 6) Techniques that foster the use of analogy in argument (this is a neglected area in EAP argument construction. However, analogy formation is a key skill in the construction of successful argument, both in science and the arts).
- 7) Researching into the pedagogical benefits of treating genres as the features that identify their exemplars as analogues of each other, or as members of cognitive categories (Swales 1990).

- 8) Illustrating the use of grammar rules-of-thumb within metaphor.
- 9) Teaching grammatical structures by placing them in the conceptual metaphors from which they are derived.
- 10) Developing an understanding of how to enhance pedagogical explanation with metaphor.
- 11) Teaching metaphor as hooks that facilitate student understanding of written and spoken texts.
- 12) Analysing and addressing errors according to their image-schematic basis.
- 13) Addressing the issue of metaphor in language in order to consider it as a purveyor of cultural values.

Little has been said about metonymy or analogy in respect of their classroom relevance. I have already introduced techniques that help students to construct then express analogical arguments in the manner suggested in point 6, above. Thus, students are given a set of circumstances in one context and are asked to construct an analogous set in another. They are also given introductory practice in assessing analogies as to whether they are false or true. This work requires development.

Some teachers may be interested in introducing a stronger sense of cross-cultural awareness into their classrooms either in respect of the construction of the target language and its contrast with the MT or in respect of the students' evaluation of their own identities. Such teachers might want to take a closer look at the area of category construction, ICMs and the prototypes through which they are represented. The exploration of the prototype of a given category can provide an extensive source of classroom interest, exposing how students locate a given term in quite variable forms of category.

The above types of technique could call for quite different forms of empirical study. For example:

- 1) Boers (2000) has shown how one can do quantitative studies on the recollection of lexis that was taught by being grouped around the conceptual metaphors from which it had been derived. Similar studies could be done in

respect of the techniques proposed here. One could, for example, look for ways to quantify the successful use of metatext and the related control of metatext after its having been taught or not taught in the manner proposed here. However, it must be acknowledged that such studies will always provoke scepticism because of the variables involved.

- 2) As in any study of teaching methodology, it would be difficult to control the many more variables that would arise from studying the broader deployment of metaphor-based techniques against a control group that did not employ them. Nonetheless this is a subject for consideration among those who would seek a broad quantitative evaluation of the effectiveness of what I am proposing.
- 3) A more manageable type of study would involve a qualitative examination of a class that had a high proportion of their teaching delivered through the techniques described above. Such a study would track the responses and feelings of the class as well describing how the items taught in this manner were or were not recycled in their discourse.
- 4) Action research type studies could be done in respect of the individual techniques or for groups of the same.

The field of metaphor is wide, well-researched and interdisciplinary in nature. The manner in which it can be carried forward into language education is now a subject of consideration. I have formulated the theoretical base upon which we can start to construct a series of techniques. The exact form that these techniques will take, how they will be implemented and researched must vary according to the nature of the future context in which they unfold.

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Quien mas rendido ?

