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Social Expertise: A Development of 'Intersubjective Maximal Grip' (IMG)

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Abstract

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  The aim of this thesis is to supplement the interactionist alternatives to folk psychology. Briefly stated, whereas the proponents of folk psychology claim that interpersonal understanding centrally involves the attribution of propositional attitudes, such as beliefs and desires, in order to predict and explain behaviour, the interactionists argue that social understanding is a skill that encompasses a number of different aspects, which includes, but is not limited to, the attribution of propositional attitudes. Since the interactionists' arguments are relatively new in the social understanding debate, many aspects of the arguments are not fully developed and explored. For instance, Hanne De Jaegher claims that the concept of "social skill" needs further development (2009, p. 427). This thesis aims to do just that by integrating two separate debates: social understanding and expertise.

  Drawing on Hubert Dreyfus' non-representational/non-propositional account of expertise, I describe, in detail, a form of social interaction (or 'social expertise') that does not centrally involve the attribution of propositional attitudes. Central to Dreyfus' discussion of skillful coping is Maurice Merleau-Ponty's concept of 'maximal grip' (MG), which refers to the way we seek to obtain a better perspective in a situation via our body. Building on this discussion, I develop a new concept called 'intersubjective maximal grip' (IMG), which describes a way we interact with others by anticipating their behaviour by recognising and responding to our respective optimal positions. In explaining this phenomenon further, I expand on Dreyfus' discussion of MG to develop two skills related to understanding others: 'joint optimal position recognition'

(JOPR) and 'optimal position recognition' (OPR). I then apply IMG to the debate about social

understanding to demonstrate how IMG supplements the interactionists' arguments against folk

psychology.

Social Expertise: A Development of 'Intersubjective Maximal Grip' (IMG)

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By

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Declaration

I confirm that no part of the material contained in this thesis has previously been submitted for any degree in this or any other university. All the material is the author's own work, except for quotations and paraphrases which have been suitably indicated.

The copyright of this thesis rests with the author. No quotation from it should be published without his prior written consent, and information derived from it should be acknowledged.

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Introduction

Folk Psychology

The aim of this thesis is to supplement the interactionist alternatives to folk psychology. However, before I go any further, I need to clarify what I mean by 1) folk psychology and 2) the interactionist alternatives. There are at least two common uses of the term 'folk psychology'. One is that 'folk psychology' refers to the general way in which everyday people understand others. This version is fairly innocuous, as few would argue against it. The other is the more specific position advocated by philosophers, psychologists, and cognitive scientists, whereby interpersonal understanding centrally involves the attribution of propositional attitudes, such as beliefs and desires, in order to predict and explain behaviour. For instance, Paul Churchland describes the second usage as follows:

> The fact is that the average person is able to explain, and even predict, the behaviour of other persons with a facility and success that is remarkable. Such explanations and predictions standardly make reference to the desires, beliefs, fears, intentions, perceptions, and so forth, to which the agents are presumed subject. (Churchland, 2004, p. 383)

To further illustrate the second version, consider the following two examples. First, "it is trivially easy to explain why John will carry his umbrella with him: it is because he *believes* it will rain and he *wants* to stay dry" (Frith & Happé, 1999, p. 2). Second, "If you see a person running to catch up with a just-departing train, for example, you interpret the person as an intentional agent, who *believes* that there is a just-departing train, and who *wants* to get on it"

(Scholl & Leslie, 1999, p. 131). The second version also goes by several other names: 'common-sense psychology', 'belief-desire psychology', and 'mindreading'. To avoid confusion, I, like Matthew Ratcliffe (2007a) and Paul Churchland (2004), refer to the first version as 'folk psychology' and the second as 'FP'. Therefore, when I stated that this thesis sets out to supplement the interactionists' arguments against folk psychology, I mean FP.

Interactionists

FP has recently come under attack from the interactionists, critics who disagree that social understanding is principally a matter of attributing propositional attitudes. Instead, they describe social understanding as a skill that encompasses a number of different aspects, which includes, but is not limited to, the attribution of propositional attitudes. The interactionists draw heavily from two, related areas. Some (notably Shaun Gallagher, Matthew Ratcliffe, and Dan Zahavi) draw from traditional phenomenology (e.g., positions espoused by Edmund Husserl, Martin Heidegger, Maurice Merleau-Ponty, and Jean-Paul Sartre) to support their arguments against FP. Others, (notably Dan Hutto and Hanne De Jaegher) draw from enactivism (e.g., positions espoused by Francisco Varela, Evan Thompson, and Alva Noë), which can be traced to traditional phenomenology[1]. The collaboration between phenomenologists and enactivists (e.g., Gallagher and Hutto 2008; De Jaegher, Di Paolo, and Gallagher 2010) is evidence for the complementary nature between these philosophical areas. Therefore, I include both phenomenological critics and enactivists under the term 'interactionists'.

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[1] Francisco Varela, Evan Thompson and Eleanor Rosch's (1991) *The Embodied Mind: Cognitive Science and Human Experience* draws heavily from phenomenology (in particular, the works of Husserl and Merleau-Ponty).

Since these phenomenologically inspired alternatives are relatively new in the social understanding debate, many aspects of the arguments are not fully developed and explored. For instance, De Jaegher claims that the concept of "social skill" needs further development (2009 p. 427). This thesis aims to do just that.

Methodology

In order to develop the concept of social skill further, I employ several methods. Although I primarily address the issues philosophically, I also draw from material outside of philosophy, e.g., developmental and experimental psychology. It should also be noted that my philosophical analysis spans both analytic philosophy of mind and phenomenology. In doing so, I draw heavily from those who combine both analytic philosophy and phenomenology into one research project, which some have called 'analytically informed phenomenology'[2]. Additionally, I draw from various proponents of enactivism who target traditional cognitivist positions that regard intelligent activity as necessarily involving the manipulation of representations[3]. As I will demonstrate in chapter 1, many of the proponents of FP adopt some form of cognitivism, as they claim the attribution of propositional attitudes is central to social understanding. Enactivist approaches to the mind, however, often treat cognition as a dynamic interplay between the organism and its environment without the recourse to mental representations[4].

This thesis supplements the enactivist accounts of social understanding by describing an account of coordinated interaction that stems from integrating two separate debates: social

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[2] I would like to thank Robbie Moser for this term.

[3] In this regard, the cognitivist position is closely related to the computational theory of mind (CTM), which argues that thinking is essentially computational in nature and holds that "the mind is a computer" (Jacobson, 2002, p. 358).

[4] I say often as Wheeler (2005) advocates a version of enactivism that is consistent with representationalism.

understanding and expertise. I appeal to Hubert Dreyfus' non-representational/non-propositional account of expertise in order to describe a form of social interaction (or 'social expertise') that does not centrally involve the attribution of propositional attitudes.

Chapter Breakdown

The first chapter presents an exposition of the two orthodox accounts of FP: theory-theory (TT) and simulation theory (ST). Briefly stated, whereas TT argues that we use a theory in order to explain and predict others' behaviour, ST generally argues that we put ourselves in the other's position to work out what this person is likely to do and why without relying on a theory[5]. After providing a more detailed account of the various claims made by both theories, I will highlight two elements. First, claiming that social understanding centrally involves the attribution of propositional attitudes is a cognitivist presupposition. Second, I will also show that prediction is often emphasized more than explanation[6]. I draw attention to these two aspects as this thesis provides an account of anticipating behaviour that does not rely on the attribution and manipulation of propositional attitudes, which will counter the cognitivist presuppositions of the proponents of FP.

Chapter 2 presents the interactionists' challenge to orthodox accounts of FP by focusing on several central aspects to their respective arguments. One central argument the interactionists advance targets the proponents of FP's presupposition that some mental states are not observable. In contrast, the interactionists argue that some mental states are observable as they are embodied. The second critiques the stance taken toward social understanding by the orthodox

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[5] I say generally as there are many versions of TT and ST as well as hybrids of both.

[6] Although the proponents of FP claim that social understanding centrally involves the explanation and prediction of behaviour, they often see prediction as the central function (Andrews, 2003).

accounts. For example, Ratcliffe calls the stance adopted by FP as a detached, impersonal stance (2007b, p. 23) and De Jaegher refers to this stance as a methodological individualism (2007, p. 486). In contrast, the interactionists argue that the stance taken to understand others in everyday discourse is a personal, interactive stance. The third is that even in cases where we do attribute beliefs and desires to others, we are not committed to either TT or ST. For instance, I will discuss Dan Hutto's 'narrative practice hypothesis' (NPH) as an alternative to the orthodox accounts of propositional attitude attribution. I also present Matthew Ratcliffe's extreme view that FP has "no psychological reality" (2007a, p. 224). I conclude chapter 2 with a brief discussion of the interactionists' response to the various empirical findings claimed to support FP, i.e., the false-belief test and mirror neurons.

After espousing the central claims made by the interactionists, chapter 3 defends them from some recent challenges put forward by Mitchell Herschbach (2008a, 2008b) and Shannon Spaulding (2010). The first half of chapter 3 addresses Herschbach's arguments that FP is more widespread than the interactionists acknowledge. To argue this, Herschbach introduces Michael Wheeler's (2005) distinction between 'on-line' and 'off-line' intelligence to the debate on social understanding in order to characterise two arguments made by the interactionists. The first is that FP is exclusively off-line and mentalistic and the second is that social understanding is on-line and non-mentalistic. To counter the interactionists, Herschbach argues for the existence of on-line false belief understanding by appealing to several psychological studies that appear to support such a view, demonstrating that FP is not restricted to off-line forms. If this is the case, then the interactionists' arguments are undermined and it establishes that FP is more widespread than the interactionists acknowledge. I respond by calling into question a number of empirical studies Herschbach uses in order to support his position. For instance, I show that one study

presupposes FP from the start and the other appears to support, rather than undermine, the interactionists' position.

The second half of chapter 3 addresses two arguments Spaulding puts forward against the use of phenomenological arguments in the debate about FP. First, she argues that since phenomenological arguments focus on the personal level of social understanding and the proponents of FP focus on the sub-personal processes responsible for social understanding, phenomenological arguments are irrelevant in the debate about FP. Second, she argues that since phenomenology is prone to error, phenomenological arguments cannot confidently undermine FP. To counter the first argument, I argue that phenomenology is certainly relevant in the debate about social understanding. I refer to several of the interactionists' arguments that the explanandum for TT and ST is at least partly derived from phenomenological reflection upon what we do. For instance, throughout the FP literature, one finds the claim that we use FP "all of the time", which suggests that the proponents of FP are interested in the phenomenology of social interaction. However, as many of the interactionists point out, the proponents of FP start with the theory of FP and impose it on social life instead of the other way round. Once we clarify the relevant biases concerning specific theories, we see that phenomenology is relevant when discussing social understanding.

I address her second argument by first showing how her argument is similar to Daniel Dennett's criticisms of phenomenology. I then appeal to several arguments made against Dennett and apply them to Spaulding's arguments. For instance, Alva Noë (2006) argues that Dennett targets 'pure phenomenology', the position that phenomenology focuses solely on how things seem to us and is not concerned with how the world actually is. In response, Noë argues the traditional phenomenologists advocated an 'integrative phenomenology', which is best summed

up by Taylor Carman who says, "Phenomenology is, in a loose sense, the study of how things seem. Yet how things seem is bound in deep and complex ways with how they are" (2006, p. 99). One problem with pure phenomenology is that there is no room to correct our potentially erroneous perception of the world. However, under integrative phenomenology, we are open to critical evaluation, which includes re-evaluating our description of reality based on our interaction with others. After describing the objections to Dennett's criticisms, I will make a similar argument and show that Spaulding also targets 'pure phenomenology', a position that I will show the interactionists do not endorse.

I conclude chapter 3 by presenting Hubert Dreyfus and Sean Kelly's (2006) argument against Dennett's opposition to traditional phenomenology where they target Dennett's commitment to the position that intentional behaviour must involve beliefs. To show that some intentional actions do not require reference to beliefs, they appeal to Dreyfus' account of expertise. In Dreyfus' words, "[Intentional action] can be *purposive* without the agent entertaining a *purpose*" (2002a, p. 379). I propose that Dreyfus' account of expertise can supplement the interactionists' argument against FP by detailing an account of social expertise that does not require the attribution of beliefs and desires.

Chapter 4, then, starts with a further exposition of Dreyfus' account by describing the five stages of attaining expertise: novice, advanced beginner, competence, proficiency, and, finally, expertise. Dreyfus argues that the beginning stages are 'rule-based', whereby the learner is given and follows specific rules, e.g., a novice driver may be given the rule to shift to second gear when the speedometer reaches a specific speed. However, over time the learner will come to know that there are many contextually sensitive features that will undermine that rule. For instance, if one tries to drive up an incline, then shifting at a lower speed may cause the car to

stall. Dreyfus argues that the only way a learner can proceed to the later stages is to abandon these rules and rely more on intuition and be more responsive to the situation at hand. This will allow the learner to become an expert by developing 'skillful coping'.

Central to Dreyfus' discussion of skillful coping is Maurice Merleau-Ponty's concept of 'maximal grip' (MG), which refers to the way we seek to obtain a better perspective in a situation via our body. For example, when learning to return a serve in tennis, the beginner has to make a conscious effort to embody a number of elementary rules, e.g., keep one's eye on the ball, and hold the racket in a specific way. On the other hand, the expert tennis player, having gone through a rigorous learning process, simply reacts to the serve. According to Dreyfus, the expert's experience "is more like one's arm going up and its being drawn to the appropriate position, the racket forming the optimal angle with the court" (Dreyfus, 2002a, p. 379). The crux is that this action, while intentional, does not require an explicit representation or belief. This, I will argue, has important implications to the debate about social understanding. If we consider ourselves 'social experts' in our everyday interactions with others, then, if Dreyfus' theory is correct, we do not often understand others in virtue of explicit representations or beliefs.

The remainder of chapter 4 relates Dreyfus' position to Gilbert Ryle's distinction between know-how and know-that. Since some interactionists argue that social understanding is a matter of know-how rather than know-that (e.g., Hutto), comparing Dreyfus' position with Ryle's distinction will be helpful in developing the overall argument of this thesis. Furthermore, I explain three positions that emerged in response to Ryle's distinction (Intellectualism, Anti-Intellectualism, and Radical Anti-Intellectualism). I present these positions in order to make the argument that, regarding expertise, Dreyfus is a Radical Anti-Intellectualist, as he argues that expertise is a matter of know-how.

After arguing that Dreyfus is a Radical Anti-Intellectualist regarding expertise, chapter 5 defends this account. Here I address Evan Selinger and Robert Crease's (2002) argument that some forms of expertise are definitively propositional. Using Gilbert Ryle's distinction, Selinger and Crease argue that Dreyfus wrongfully excludes know-that as expert knowledge. To highlight the problem with Dreyfus' account, Selinger and Crease then introduce a distinction between an 'expert x' (who has practical knowledge) and an 'expert in x' (who has theoretical knowledge). For example, a farmer would be an 'expert x' whereas the Secretary of Agriculture an 'expert in x' (2002, p. 258).They then argue that Dreyfus would wrongfully deny that the Secretary of Agriculture is an expert, as this knowledge is definitively propositional. I also present Barbara Montero and C.D.A. Evans' (2011) argument against applying Dreyfus' account to chess. Whereas Dreyfus would argue a chess player's expertise is a matter of arational intuition, Montero and Evans (2011, p. 178) argue that chess intuition is rational "through and through", as they argue a chess expert's intuition is conceptual. Using Ryle's distinction, whereas Dreyfus would argue chess expertise is a matter of know-how, Montero and Evans argue it is a matter of know-that.

In response, I argue that Dreyfus would not deny expertise to someone like the Secretary of Agriculture, but this does not mean that Dreyfus would say the Secretary of Agriculture's knowledge is definitively propositional. Rather, Dreyfus would say someone like the Secretary of Agriculture is an 'expert y', as the Secretary of Agriculture would still rely on knowledge that cannot be sufficiently put into propositional form. Furthermore, to undermine Montero and Evans, I draw on a number of nonconceptual accounts of perception that correspond to several features of Fernand Gobet's (2012) counter to Montero and Evans (2011): the importance of context, we can learn without concepts, and the 'uselessness' of certain concepts.

Chapter 6 addresses arguments that target the intersubjective element of Dreyfus'

account. Specifically speaking, I focus on Selinger and Crease's (2002) argument that Dreyfus'

account of expertise fails to develop the role social interaction plays in expertise. My defence is

an expansion of Shaun Gallagher's claim that intersubjectivity is implicit in Dreyfus' account of

expertise (Gallagher, 2007a, p. 205). The first step is to show that Selinger and Crease hint at this

implicit element when they discuss the example of the coach. As they say, the coach has her own

MG whereby the coach seeks to "optimize the conditions to allow the pupil to go beyond not

only his or her present performing ability, but the coach's as well" (Selinger & Crease, 2002, p.

260).

To further build the case that this example indicates the implicit intersubjective element

within Dreyfus' account of expertise, I appeal to Thomas Fuchs and Hanne De Jaegher's (2009)

discussion of 'incorporation', which they define as the process of the body 'merging' with

objects in its environment. Fuchs and De Jaegher supports my argument against Selinger and

Crease's second argument against Dreyfus, as they distinguish between two kinds of

incorporation: unidirectional (the way we incorporate inanimate objects) and mutual (the way we

incorporate other human beings). I show that mutual incorporation (MI) acts as a way to

explicate the implicit intersubjective element in Dreyfus' account of expertise.

Although I appeal to MI to support my argument in chapter 6, I do have some concerns

with the concept and spend the remainder of chapter 6 and part of chapter 7 critiquing it. For

instance, I argue in chapter 6 that there is an ambiguity surrounding the usage of the terms

'extension' and 'incorporation' and I argue in chapter 7 that the concept is too vague. Therefore,

in addition to centrally addressing the implicit intersubjective aspects of Dreyfus' account of

expertise, chapter 6 also acts as a contextualising chapter for the last chapter where I develop a new concept to supplement the interactionists' arguments against FP.

Chapter 7 develops a new concept I call 'intersubjective maximal grip' (IMG). Integrating the debate about social understanding and expanding on Dreyfus' non-representational account of expertise, I show that IMG describes a way we interact with others by anticipating their behaviour by recognising and responding to our respective optimal positions. In explaining this phenomenon further, I expand on Dreyfus' discussion of MG to develop two skills related to understanding others: 'joint optimal position recognition' (JOPR) and 'optimal position recognition' (OPR). I then apply IMG to several arguments discussed in the first three chapters of this thesis in order to show how IMG supplements the interactionists' arguments against FP. The last section of this chapter distinguishes IMG from Fuchs and De Jaegher's MI.

Whereas MI describes the interaction between others in terms of incorporation, IMG focuses on the recognition of and response to others' optimal positions in a given social situation. To distinguish the two concepts, I show that MI is meant to add to the concept of 'participatory sense-making' by describing the phenomenon of bodily interactions. From here, I appeal to Gallagher's (2009b) argument that there are two problems of intersubjectivity: participatory sense-making (PSM) and social cognition (SC) and point out how the former is more general in nature and how the latter is more specific[7]. I then introduce IMG as a way of connecting these two problems by describing a specific way we coordinate with others (which is consistent with SC) by recognising and responding to each other in general (which is consistent with PSM).

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[7] For instance, Gallagher claims that PSM is concerned with how we co-constitute the meaning of the world whereas SC is concerned with understanding another person (Gallagher, 2009b, p. 297)

It should be noted that this thesis is not meant to encompass all that is involved in being a social expert. The interactionists often object to the proponents of FP's tendency to oversimplify the nature of social understanding by reducing it to two functions: explanation and prediction of behaviour by attributing propositional attitudes such as beliefs and desires. For instance, Gallagher argues that the proponents of FP fail to discuss other functions essential to social understanding, such as evaluation, which is "more like an embedded reflection on possible actions than a detached consideration of mental states" (2001, p. 94). Therefore, like the interactionists, I agree that social interaction is a complex phenomenon and I set out to describe an aspect of social expertise in greater detail.

Chapter 1: Traditional Accounts of FP

The purpose of this chapter is to provide an exposition of the various positions concerning FP. To do this, I split my presentation into two parts. The first part addresses the history of folk psychology. I start with some of the philosophical positions that led to the current debates about folk psychology, e.g., Wilfred Sellars' position that we understand others via a theory and David Lewis' elaboration on the platitudes involved in this theory. I also briefly present the debate about the ontological status of propositional attitudes. On one side, the realists argue propositional attitudes exist and that folk psychology is a good theory, whereas the eliminativists argue propositional attitudes do not exist and that folk psychology is a bad theory. Instrumentalists, occupying a middle position, are less concerned about the ontological status of propositional attitudes and argue that folk psychology is not a theory. Rather, they argue that folk psychology is a 'practice', 'stance', or 'strategy'[8].

The second part of this chapter presents the debate about how we use folk psychology. Although both theory-theory (TT) and simulation theory (ST) agree that social understanding centrally involves explaining and predicting another's behaviour by attributing propositional attitudes, they disagree over *how* this is done. Although there are many versions of TT and ST, TT generally argues that we use a partially tacit, conceptual framework in order to explain and predict others' behaviour, whereas ST generally argues that we imaginatively put ourselves in their position so as to work out what they are likely to do and why. I then present some of the

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[8] Although I do not discuss the ontological status of propositional attitudes throughout my arguments in the latter chapters of the thesis, I agree that our ability to understand others is not a matter of a theory. However, unlike the instrumentalists, I disagree that these interactions are a matter of FP.

empirical evidence used to support various accounts of FP, e.g., the false-belief task and the

discovery of mirror neurons. At the end of the chapter, I will highlight two aspects:

a) the reliance on cognitivist assumptions

b) the emphasis on prediction

I highlight these two aspects, as these will become the central focus of my argument against

FP. Ultimately, I argue for a non-cognitivist account of anticipating behaviour whereby the

attribution of propositional attitudes is not central. However, before I get into a presentation of

the orthodox accounts of FP, I will present a brief history of its development.

Sellars and Lewis

Perhaps the root of the contemporary discussion of FP starts with Sellars, as he argued

that we understand others via a theory in 1956. Sellars' goal is to reach a balance between the

behaviourist claim that references to internal mental states when discussing behaviour is

unnecessary and the position that we have exclusive access to our mental states. The latter

Sellars calls 'the myth of the given' (1997). In seeking a middle ground, Sellars constructs an

alternative myth that shows how we understand others in terms of reasons, which he claims are

theoretical entities.

The myth begins with of our "Rylean" ancestors whose language solely revolved around

behaviour and dispositions to behave. One problem was that these ancestors had difficulty

understanding strange/unusual behaviour. For instance, they could not understand why Smith, a

member of the community, took the steep path to the waterfall when the other members of the

community normally chose the gentler path. Sellars then introduces Jones, a genius, who realized

that he could attribute 'reasons' as theoretical entities to Smith, which act as a way to understand the motivation for Smith's behaviour. Specifically, Jones could attribute 'beliefs' and 'desires' to Smith as a way to understand Smith's "inner episodes of thought". For example, Jones could employ his theory and understand that Smith took the steep path because Smith had the 'belief' that it was the quickest route and that Smith had the 'desire' to get to the waterfall quickly. Jones' theory linked Smith's unobservable mental states (his beliefs and desires) to his observable behaviour in order that others may understand Smith's actions. Although the myth about Jones inventing folk psychology is not a historical fact, philosophers and psychologists often agree that Sellars' theory is the start of the philosophical and psychological discussions of FP[9].

David Lewis furthered Sellars' theory, shaping it to resemble the current position debated today. Central to Lewis' account are the various 'platitudes' that compose the theory we use whenever we understand others. The platitudes generally take the following form: "When someone is in so-and-so combination of mental states and receives sensory stimuli of so-and-so kind, he tends with so-and-so probability to be caused thereby to go into so-and-so mental states and produce so-and-so motor responses" (Lewis, 1972, p. 256). To decide what platitudes to include in our theory, Lewis tells us to collect the platitudes that focus on the casual relations between mental states as well as the platitudes that describe the kinds of mental states, e.g., "toothache is a kind of pain'" (1972, p. 256). Lewis also advocates that this theory is truly a 'folk' theory, as this is something that we all do or have knowledge about when he urges us to, "Include only platitudes which are common knowledge among us – everyone knows them, everyone knows that everyone else knows them, and so on" (1972, p. 256).

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[9] One such example is Willem deVries' (2006) "Folk Psychology, Theories, and the Sellarsian Roots."

From Lewis, the debate about FP became focused on the ontological status of these theoretical entities (i.e., beliefs and desires). If we say that we understand others' actions (and presumably our own) by mental states, then questions concerning their nature would inevitably arise. For example, do propositional attitudes exist? If so, how do they play a role in our behaviour? Do they cause our behaviour in the way that one ball causes another ball to move? If different, then what is the difference? If not, what does that say about our 'theory' of mind? Is it a false theory? This debate is predominately occupied by three camps: realism, eliminativism, and instrumentalism, which I will now present in some detail.

Realism, Eliminativism, and Instrumentalism

An exemplary realist is Jerry Fodor (1987), as he argued that propositional attitudes exist and they have causal powers. Using Hamlet as an example, Fodor says, "It is Hamlet's belief that Claudius killed his father – the very same belief which is true or false in virtue of the facts about his father's death – that causes him to behave in such a beastly way to Gertrude" (Fodor, 1987, p.12). Returning to Sellars' example, Fodor would say it was a combination of Smith's beliefs and desires that caused him to take the steep path. Fodor states that this is not a controversial claim for a realist because "every psychology that is Realist about the mental ipso facto acknowledges its causal powers" (1987, p. 12).

Central to the realist's position is the response to the following objection: if propositional attitudes exist and they are casually efficacious, why are we not aware of the whole process? In other words, if these causally efficacious propositional attitudes are so central to our understanding of behaviour, we should be aware of them more readily than we are. This

objection is particularly problematic for Lewis who claims that the platitudes of our folk theory are known by everyone. Fodor's answer is to say that our theory is largely implicit. In other words, this theory works in the 'background' or 'non-consciously'. To further support this position, it is common in the TT literature to compare this tacit body of knowledge to Chomskyan linguistics (e.g., Marraffa, n.d.). According to Chomskyan linguistics, a speaker's and hearer's competence relies upon a tacit knowledge of the grammatical principles of the language they speak and understand. Everyday or 'folk' users of a language employ this tacit knowledge of the grammatical principles of their language without explicitly knowing what the precise principles are. Analogously, we employ our tacit knowledge of how the attribution of propositional attitudes function in explaining and predicting behaviour.

In advancing the force of FP, Fodor claims that it explains more facts about behaviour than any other theory for one reason: "there are no alternative theories available" (1987, p. x). In other words, FP is "the only game in town" (Fodor, 1975, p. 55). Fodor claims that "if commonsense intentional psychology really were to collapse, that would be, beyond comparison, the greatest intellectual catastrophe in the history of our species; if we're wrong about the mind, then that's the wrongest we've ever been about anything" (Fodor, 1987, p. xii). It is this claim that the eliminativist wishes to contest.

Eliminativism

The prototype eliminativist is Paul Churchland, who disagrees with the central claims of realism. In advocating eliminative materialism, Churchland argues that FP is a "radically false

theory" which will be replaced by a more comprehensive understanding of neuroscience (2004, p. 382). In order to support his claim, Churchland's first step is to establish that FP is a theory by making an analogy between FP and mathematical physics. He says they share the same structural features, as both deal with "abstract entities": mathematical physics deals with numbers and FP deals with propositions (2004, p. 386). He further claims that FP's functions (i.e., explanation and prediction) presuppose various laws, and knowing these laws (tacitly or not) involves a theory. As Churchland explains,

> But explanations presuppose laws – rough and ready ones, at least – that connect the explanatory conditions with the behaviour explained. The same is true for the making of predictions, and for the justification of subjunctive and counterfactual conditional concerning behaviour. Reassuringly, a rich network of common-sense laws can indeed be reconstructed from this quotidean commerce of explanation and anticipation; its principles are family homilies; and their sundry functions are transparent. Each of us understands others, as well as we do, because we share a tacit command of an integrated body of lore concerning the law-like relations holding among external circumstances, internal states, and overt behaviour. Given its nature and functions, this body of lore may quite aptly be called 'folk psychology'. (2004, p. 383)

Therefore, according to Churchland, "Not only is folk psychology a theory, it is so *obviously* a theory that it must be held a major mystery why it has taken until the last half of the twentieth century for philosophers to realize it" (2004, p. 386). The next premise is that folk psychology is a bad theory. To support this claim, Churchland points to three areas: FP's

failures, its stagnation, and its isolation from other well-established theories (specifically those in neuroscience) (2004, p. 387).

First, Churchland addresses the central reason why so many people support FP: its apparent success at explaining and predicting behaviour. In contrast, Churchland states that FP's success is over-rated, as there are a number of social circumstances that folk psychology cannot account for, e.g., mental illness, imagination, or difference in intelligence between various individuals. Although he does not go into detail as to why, he claims "On these and many other mental phenomena, FP sheds negligible light" (Churchland, 2004, p. 387). He does, however, address how ill-equipped FP is to address the issue of learning in general. For instance, Churchland describes that the FP conceives of learning as the "manipulation and storage of propositional attitudes", but FP has a difficult time accounting for how we do that when the most common form of learning is pre-linguistic (2004, p. 387). As Churchland says in his own words:

> One particularly outstanding mystery is the nature of the learning process itself, especially where it involves large-scale conceptual change, and especially as it appears in its pre-linguistic or entirely non-linguistic form (as in infants and animals), which is by far the most common form in nature. FP is faced with special difficulties here, since its conception of learning as the manipulation and storage of propositional attitudes founders on the fact that how to formulate, manipulate, and store a rich fabric of propositional attitudes is itself something that is learned, and is only one among many acquired cognitive skills[10]. (2004, p. 387)

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[10]The limitations of FP in this regard will be further discussed in the later chapters in this thesis. For instance, I will argue for an account of social interaction that is not sufficiently captured by propositional thought.

Churchland also argues that the "FP of the Greeks is essentially the FP we use today", which is problematic as we are "...negligibly better at explaining human behaviour in its terms than was Sophocles" (2004, p. 388). This leads Churchland to his last point that FP lags behind scientific progress and fails to integrate other discoveries in other scientific areas. Here he points to the fact that when one scientific field makes a new discovery, it often affects other scientific finds. For instance, new discoveries in physics may affect our understanding of biology, chemistry, or geology. However, Churchland says that FP has not incorporated any of these new discoveries; in other words, FP appears to be 'out of the loop'. In his words,

> In short, the greatest theoretical synthesis in the history of the human race is currently in our hands, and parts of it already provide searching descriptions and explanations of human sensory input, neural activity, and motor control. But FP is no part of this growing synthesis. Its intentional categories stand magnificently alone, without visible prospect of reduction to that larger corpus. (Churchland, 2004, p. 388-389)

Churchland concludes by saying that eventually cognitive scientists will provide a complete neuroscientific account of how we understand others and that such an account will be at odds with FP. Since FP is obsolete, it will be eliminated.

Instrumentalism

The most widely recognised instrumentalist is Daniel Dennett[11]. Unlike Fodor, Dennett is not concerned whether propositional attitudes exist or whether they are casually efficacious and, unlike Churchland, Dennett rejects the view that FP is a theory. Rather, Dennett takes FP to be a practice, or in Dennett's own terms a "craft" or "Folk craft". Dennett's contention is that, unlike theories, folk psychology does not have "any explicit theorems or laws" (1998, p. 82). In order to understand Dennett's objection, consider his examples:

> If you ask native potters how they make their pots they may tell you one thing and do another. It is not a question of lack of sophistication. Jet airplane pilots tell their students, "This is how you fly a jet plane." They even write books about how they fly jet planes, but often that is not how they fly. They often don't know what they're doing. (1998, p. 83-84)

The point here (which will also be a central theme in the later chapters of this thesis) is that some actions are a matter of practical knowledge that cannot be fully captured into propositions. Dennett makes a similar claim about knowing the propositions behind our theory of mind. As he states, "What we learn at mother's knee as we are growing up, and what might be to some degree innate, is a multifarious talent for having expectations about the world. Much of that never gets articulated into anything remotely like propositions" (Dennett, 1998, p. 82)

Another central element to Dennett's account of FP as a stance is his discussion of three predictive stances: the physical stance, the design stance, and the intentional stance. In the physical stance, we view a system in purely physical terms and our predictions are based on our knowledge of how these objects interact with various physical laws. In Dennett's words,

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[11] Dennett has accepted being called an instrumentalist in the past, but he does claim to be "a sort of realist". In making this claim he distinguishes his version of realism and Fodor's by saying the latter is realism with a capital 'R' (1987, p. 71)

If you want to predict the behaviour of a system, determine its physical

constitution (perhaps all the way down to the microphysical level) and the

physical nature of the impingements upon it, and use your knowledge of the laws

of physics to predict the outcome for any input. (1987, p. 16)

For example, Dennett says that the chemist or the physicist can employ the physical

stance within the context of their respective laboratories in order to predict the behaviour of the

phenomenon or phenomena in question (1987, p. 16). He also says that a cook can predict the

outcome if a pot is left on the burner for too long through the physical stance (Dennett, 1987, p.

16). However, Dennett recognises that this stance is impractical in other contexts. For instance,

the amount of physical information needed in order to predict how fast a pen will fall is much

less than the information needed in order to predict whether a student will choose a class in

Bioethics or a class in Psychology. Furthermore, such a stance may not be able in principle to

address the example of the student picking one class over another. For instance, there is the

historical argument that purely physical explanations cannot explain everything[12]. Dennett,

himself, recognises that claiming that we can predict everything in the universe through the

physical stance is impractical and a dogma of the physical sciences (1987, p. 16). Therefore,

Dennett introduces the design stance.

The design stance views a system as having a design or function and predictions in this

stance are based on what the system is designed to do. In Dennett's terms, when we adopt the

design stance, we ignore the "possibly messy" mechanical details of the object in question, but

[12] In Plato's *Phaedo*, Socrates explains why he is dissatisfied with purely physical explanations. For instance, one could give a physical explanation of how Socrates is in jail awaiting execution, e.g., his bones, flesh, hair, muscles, and so on, were in such a position as to allow him to sit in the jail cell. However, Socrates objects and says that although this describes the fact that he is physically in jail, but it does not explain why he is in jail and not anywhere else (1981, p. 137). The same physical laws would suffice for any location where Socrates could sit, e.g., his home, the marketplace, and so on. However, there is a specific reason why Socrates is in jail that cannot be accounted for with only a physical explanation.

work with an assumption that the objection has a certain design and predict that the object will behave "as *it is designed to behave* under various circumstances" (1987, pp. 16-17). For example, if we want to predict the actions of an alarm clock, the physical stance may not be helpful, as many of us do not know the various mechanical engineering principles involved in the workings of an alarm clock. Rather, we make our predictions based on the clock's function to make an alarm sound at a given time. Using computers as an example, Dennett claims:

> For instance, most users of computers have not the foggiest idea what physical principles are responsible for the computers highly reliable, and hence predictable, behavior. But if they have a good idea of what the computer is designed to do (a description of its operation at any one of the many possible levels of abstraction), they can predict its behavior with great accuracy and reliability, subject to disconfirmation only in cases of physical malfunction. (1987, p. 17)

However, Dennett says there will be cases when the design stance is "practically inaccessible" (1987, p. 17). He then introduces the intentional stance where we view a system as having intentional attitudes (such as beliefs and desires), and we predict the behaviour of that system based on those intentional attitudes. Dennett describes initiating the intentional stance as follows:

> …first you decide to treat the object whose behavior is to be predicted as a rational agent; then you figure out what beliefs that agent ought to have, given its place in the world and its purpose. Then you figure out what desires it ought to have, on the same considerations, and finally you predict that this rational agent will act to further its goals in the light of its beliefs. A little practical reasoning

from the chosen set of beliefs and desires will in many – but not all – instances

yield a decision about what the agent ought to do; that is what you predict the

agent *will* do. (1987, p. 17)

The crux is that, unlike the realists, Dennett is not committed to the view that beliefs and desires are actually causally efficacious, but, unlike the eliminativists, he does claim they are central to the way we understand behaviour.

More recent debates, however, are not as concerned about the ontological status of FP. Rather, researchers became more interested in how we use FP. For instance, researchers generally accept *that* the attribution of propositional attitudes is central to social understanding, but they disagree about *how* we attribute them. This debate is divided into two main camps, theory-theory and simulation theory, which I will now present in further detail.

Theory-theory and Simulation theory

According to orthodox views about FP, i.e., theory-theory (TT) and simulation theory (ST), interpersonal understanding centrally involves the attribution of propositional attitudes, such as beliefs and desires, in order to predict and explain behaviour. ST and TT, however, disagree about how we attribute these beliefs and desires to others. Although there are many versions of TT and ST, TT argues that we use a partially tacit, conceptual framework in order to explain and predict others' behaviour, whereas ST argues that we imaginatively put ourselves in their position so as to work out what they are likely to do and why. In the next section, I present these positions and their variations in more detail.

Theory-Theory

For the most part, TT is split between two camps: child-scientist view and the nativist view. Both the child-scientist and the nativist agree that a child's primary way of understanding others is theory laden inferences, but they disagree about how this comes about. The child-scientist theory-theorists argue that social understanding is a theory that is learned whereas the nativists argue that our ability to understand others is an innate mechanism that is triggered or activated. Described this way, one could draw a similarity between the debate between the child-scientists and the nativists and the debate between the empiricists and the rationalists. For example, like the empiricists and rationalists who argued over whether some knowledge was innate (independent of experience), the child-scientists and the nativists argue over whether our ability to attribute propositional attitudes is learned or not. Starting with the child-scientist position, I will now describe these theories in further detail.

Like a scientist who continually tests and revises hypotheses given the results of various experiments, the child-scientist theory-theorist argues that a child will develop and alter various theories on how to understand others based on his or her experience. Child scientist theory-theorists also address the objection that this analogy is faulty, as there are significant differences between scientists and children. Namely, there is a large discrepancy between the informal way a child may construct a theory versus the way in which a scientist, rigorously, develops a theory. As Gopnik states,

> In fact, the claim that children construct theories is often greeted by scientists, philosophers and psychologists... with shocked incredulity. Surely, they cry, you cannot really mean that mere children construct theories, not real theories, the

kind of theories that we, that is we serious grown- up scientists, philosophers and

psychologists construct with so much sweat and tears. (Gopnik, 1996, p. 486)

Adding to this objection, unlike children, scientists consciously reflect on their complex,

detailed theories. In addition, scientists often construct these theories in a "structured institutional

setting, in which there is much formal interaction with other scientists" whereas children, for the

most part, interact in a rather informal way and setting (Gopnik, 1996, p. 486). In other words,

the fact that scientists develop and use their respective theories within laboratories and

universities and children develop and use their respective theories within playgrounds and homes

demonstrates that the analogy between the two is unwarranted.

Gopnik defends the analogy by arguing that scientists have more in common with

children than fully grown human beings. To show that the analogy is warranted, she adds that not

only is the analogy fruitful to understand how children understand, it can also help us understand

science (1996, p. 486). As she states,

Science is cognitive almost by definition, insofar as cognition is about how minds

arrive at veridical conceptions of the world. In one sense scientists must be using

some cognitive abilities to produce new scientific theories, and to recognize their

truth when they are produced by others...Scientists eventually converge on the

same set of decisions. The view that is the consequence of these decisions

converges on the truth about the world. Scientists must be using human cognitive

capacities to do this. What else could they be using? (1996, p. 488)

Gopnik then focuses on the nature of cognition relevant to science. As Gopnik states,

science uses representations and rules in order to "uncover the truth about the word" and that

science often gets it right because science "uses psychological devices that were designed by

evolution precisely to get things right" (1996, p. 489). Gopnik then makes the connection

between science and developmental psychology by claiming that children have particularly

"powerful and flexible" cognitive devices used to understand "new and unexpected worlds",

which some adults have not continued to develop (1996, p. 490). As Gopnik explains in further

detail:

> Once the child has engaged in the theorizing necessary to specify the features of
>
> its world, most of us, most of the time, may simply go on to the central
>
> evolutionary business of feeding and reproducing. But these powerful theory
>
> formation abilities continue to allow all of us at some times, and some of us,
>
> namely professional scientists, much of the time, to continue to discover more and
>
> more stuff about the world around us. On this view, science is a kind of spandrel,
>
> an epiphenomenon of childhood. (1996, p. 490)

In arguing that the development of our theory of mind is learned, Gopnik points to

several key developmental achievements, e.g., studies that show children with many siblings

often develop a theory of mind earlier than children with fewer siblings (1996, p. 508). She also

points to studies that show children develop a theory of mind earlier when families discuss

mental states with their children (Gopnik, 1996, p. 508). The explanation is that the interaction

between siblings has more in common with a 'learning' environment than an innate mechanism.

On the other hand, nativists argue that our acquisition of the theory is innate. To

illustrate the nativist's position, I focus on a central concept to the nativist theory: the theory of

mind mechanism (ToMM). First introduced by Alan Leslie (1994), ToMM refers to an innate

mechanism that turns all of our mentalistic knowledge into a theory. Unlike the child-scientists,

nativists point to the universality of our ability to mindread as evidence that this ability is innate. As Baron-Cohen writes,

> ToMM's development also appears to be universal/independent of culture: children and adults, the world over, interpret behaviour in terms of mental states. This implies that its development is partly, if not completely, driven by individual, biological factors within the child. (1995, p. 162)

Baron-Cohen includes ToMM as one of the four key mechanisms crucial for developing our ability to mindread, which I will briefly describe.

The first he terms the 'intentionality detector' (ID), which describes an innate ability that infants have to understand bodily movement as intentional (1995, pp. 32-35). The second mechanism is the 'eye-direction detector' (EDD), which denotes an infant's ability to recognise where another person is looking. These two mechanisms may appear similar, but one can perceive intentional action without taking into account what the intentional agent perceives. Baron-Cohen also claims that EDD involves three functions: first, it detects the presence of eyes, it "computes" where the eyes are looking, and lastly it "infers" from oneself that if the others eyes are looking towards something, then the other person perceives that object (1995, pp. 38-39)[13]. The third is the 'shared attention mechanism' (SAM). The main function is to build 'triadic representations', which "specify the relations among an Agent, the Self, and a (third) Object" (1995, p. 44). Baron-Cohen's example is: "John sees that I see the girl" (1995, p. 45). SAM also computes shared attention by comparing another person's perceptual state with our own, which generates that we perceive the same thing (1995, p. 46).

Baron-Cohen then introduces ToMM in order to synthesize the previously mentioned mechanisms. After describing the other mechanisms, Baron-Cohen claims that two things are

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[13] Gallagher (2001, p. 81) notes that this claim seems more in line with ST.

still needed: 1) a way of "representing the set of *epistemic mental states* (which include

pretending, thinking, knowing, believing, imagining, dreaming, guessing, and deceiving)," and

2) a way of uniting those mental concepts into a "a coherent understanding of how mental states

and actions are related" (1995, p. 51). Baron-Cohen's answer is ToMM, as it has "the dual

function of representing the set of epistemic mental states and turning all this mentalistic

knowledge into a useful theory" (1995, p. 51).

   After explaining both versions of TT, I will now discuss simulation theory (ST).

Although both versions of TT disagree how we come about our theory, they do agree that we

understand each other via theoretical inference. However, simulation theorists disagree.

Simulation Theory

   ST was first introduced separately as an alternative to TT in 1986 by Robert Gordon and

Jane Heal. The common theme in the arguments for ST is we do not need to resort to a theory to

understand others, since we can simulate (or replicate in Heal's terms) another's state of mind by

getting ourselves into the same state as the person we wish to understand. As Heal explains in

more detail,

> I can imagine how my tastes, aims and opinions might change and work out what
>
> would be sensible to do or believe in the circumstances. My ability to do these
>
> things makes possible a certain sort of understanding of other people. I can
>
> harness all my complex theoretical knowledge about the world and my ability to
>
> imagine to yield an insight into other people *without any further elaborate*

theorizing about them. Only one simple assumption is needed: that they are like

me in being thinkers, that they possess the same fundamental cognitive capacities

and propensities that I do. (2004, p 336)[14]

Although there many variations of ST, for brevity, I will focus on Robert Gordon's and

Alvin Goldman's respective positions.

In distinguishing TT from ST, Gordon first makes the distinction between two

methodologies: hot and cold. Gordon describes a cold methodology as "A methodology that

chiefly engages our intellectual processes, moving by inference from one set of beliefs to

another, and makes no essential use of our own capacities for emotion, motivation, and practical

reasoning" (1996, p.11). Using the example of Shakespeare's A Midsummer Night's Dream,

Gordon shows how TT engages in a cold methodology. Gordon focuses on the scene on where

Hermia wakes up and does not find her lover, Lysander, beside her and concludes that his rival,

Demetrius, murdered him. According to Gordon, Fodor would explain Hermia's conclusion as "a

product of 'implicit, non-demonstrative theoretical inference' that leads her to think that

Demetrius had certain desires and emotions, that he made certain practical inferences, and that he

performed an act of a certain type of action" (1996, p. 12). In particular, Gordon says that Fodor

would claim Hermia's reasoning resembled the following:

Demetrius is a rival of Lysander, and rivals want each other to get out of the way.

And Demtrius has the following belief: Lysander will not be out of the way unless

he is dead, and I Demetrius can bring about Lysander's death. Hermia plugs these

ascriptions into the law, 'If one wants that P believes that non-P unless Q, and

also believes one can bring it about that Q, then (ceteris paribus) one tries to bring

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[14] Heal's sentiment is also affirmed by Alvin Goldman (2006, p. 20).

it about that Q'. Hence Hermia says to Demtrius, 'It cannot be but though hast murder'd him'. (1996, p. 12)

According to Gordon, if we understand Hermia's thought process as described earlier, then Hermia is "without a doubt" (1996, p.12) engaged in a cold methodology, as the TT explanation only focuses on specific beliefs and the law-like relationship between them (e.g., the invocation of ceteris paribus in the previous quotation). However, Gordon says the problem is that the previous explanation does not consider the role of Hermia's practical reasoning and that the issue at stake concerns Demetrius' emotions, desires, and practical reasoning (1996, p.12). Therefore, the 'cold' calculative nature of TT neglects crucial aspects of situation at hand.

Gordon's version of ST, on the other hand, makes use of more than moving from "belief to belief" (1996, p. 12). For instance, Gordon claims that Hermia would simulate Demetrius by using her own motivational and emotional resources and her own capacity for practical reasoning to predict Demetrius' actions, thereby employing a 'hot methodology'. In Gordon's terms, Hermia would have 'transformed' herself into Demetrius to predict his behaviour. As Gordon explains in further detail,

> Before making these decisions, she would transport herself in imagination into his situation to the extent to which it seemed, to a first approximation, relevantly different from her own; but not strictly transport *herself*, Hermia, but rather a self *transformed,* insofar as seemed necessary, into someone who would behave as she had known *Demetrius* to behave. (1996, p. 12)

To further understand what Gordon means by 'transformation' in this context, consider his example of Mr. Tees who has missed his flight by five minutes. Gordon says we can understand Mr. Tees through two versions of ST. First, we could imagine what it would be like if

I missed the flight and then extrapolate to Mr. Tees. Second, we could be more direct and transform ourselves into Mr. Tees (Gordon, 1995, p. 55). To be clear, Gordon does not mean that we transform ourselves in the way a magician or a wizard would in a cartoon. Rather, Gordon means we become Mr. Tees by performing an "egocentric shift". As Gordon explains,

> He becomes in my imagination the referent of the first person pronoun "I," and the time and place of his missing the plane become the referents of "now" and "here." And I, [Robert Gordon], *cease* to be the referent of the first person pronoun: what is imagined is not the truth of the counter-identical, "[Robert Gordon] is Mr. Tees". (1995, p. 55)

Another central form of ST comes from Alvin Goldman. Unlike Gordon's transformative ST (where we become Mr. Tees), Goldman advocates a projective model (where we imaginatively project ourselves into Mr. Tees' psychological position), which he splits between low-level and high-level mindreading (2006, p. 43). Whereas low-level mindreading concerns sub-personal processes (discussed later in this chapter), high-level mindreading refers to the personal level of simulation. In other words, high-level mindreading refers to the mindreading we are, generally, aware of. In describing this further, Goldman claims high-level mindreading involves one or more of the following three features:

a) it targets mental states of a relatively complex nature, such as propositional attitudes;

b) some components of the mindreading process are subject to voluntary control; and

c) the process has some degree of accessibility to consciousness (2006, p. 147).

The first step of high-level mindreading, according to Goldman, is for the attributor to create the 'pretend states' of the target in oneself (2005, p. 80). Goldman, elsewhere, calls this pretend state 'E-imagination' (2006, p. 147). In his terms,

> I propose that pretend states—in the sense intended by ST—are states produced by enactment imagination (E-imagination). A pretend desire is the product of enacting, or attempting to enact, desire; a pretend state of fear is the product of enacting, or attempting to enact, fear; and so on. Pretend desire is quasi desire produced by E-imagination, pretend fear is quasi fear produced by E-imagination, and so forth. (2006, p. 48)

The second step in Goldman's process is to take these generated pretend states and "feed" them into our own decision making processes in order to generate what the outcome (either prediction or explanation) will be. Then, the third step is to assign the outcome state to the target (2005, pp. 80-81). For example, if I want to simulate what my wife would do in the event of seeing a clown at a party, I would first, through E-imagination, create a pretend state that would mirror her state of fear. I would then 'feed' this into my decision making process in order to generate the prediction that my wife would leave the party and then assign this outcome to my wife.

Since we rarely act out the imaginative decision outputs used in simulation, Goldman says in most cases when we simulate we take our own decision making mechanisms "off-line". For instance, as I write this section, I am in a university's library, sitting across from a student whose mobile phone is ringing in her backpack. According to Goldman, if I did not take my decision making mechanism off-line, then when I predict that she will reach into her backpack to retrieve the phone using the method that Goldman describes, I will mirror her action, e.g., I will

actively perform the action of reaching for my (actual or imaginary) backpack. Rather, by taking my mechanism off-line, I can observe and predict her actions without actively engaging in the same actions myself.

Before I conclude my discussion of Goldman's position, I should show how he addresses a central critique against his position. Both Gordon (1995) and Shaun Gallagher (2007b) argue that Goldman's theory of ST is an inference from analogy. Briefly stated, the problem is that when we simulate others by putting ourselves in their positions, we often do not learn much about them. Rather, we would only know what we would do in their position. In Gallagher's words,

> [G]iven the large diversity of motives, beliefs, desires, and behaviors in the world, it is not clear how a simulation process based on my own relatively narrow experience (or relatively unique circumstance) can give me a reliable sense of what is going on in the other person's mind, or in their behaviour. (2007b, p. 355)

To address the concern about an argument from analogy, Goldman introduces the concept of quarantine whereby successful simulation requires the simulator to quarantine one's own beliefs and desires in order not to contaminate the simulated beliefs of the target (2006, p. 41). For instance, my wife has a strong fear of clowns and if she were to simulate someone who loved clowns, she would have to quarantine her specific beliefs about clowns in order to properly simulate the other person.

TT & ST Hybrids

A more recent development in the debate FP is the introduction of hybrid accounts that combine elements of both TT and ST. As Stone and Davis (1996) note, the debate between TT and ST is less antagonistic and is open to discuss various points of agreement. This, they claim, sets the stage for hybrid theories, which are theories that "postulate both theory and simulation, and then spell out the way in which those two components interact" (Stone & Davis, 1996, p. 136). I will briefly discuss two hybrid theories. The first comes from Stich and Nichols (2003) and Goldman (2006).

Although they originally opposed simulation theory in their earlier work (e.g., Stich & Nichols 1992) Stich and Nichols (2003) advocate a hybrid theory combining elements of both TT and ST. In order to explain their new hybrid account, I first need to explain their 'boxological' depiction of the structure of the mind, whereby central elements of the mind and its functions are represented as 'boxes', e.g., 'Belief Box', 'Desire Box', 'Decision-making Boxes', 'Perceptual Boxes', and 'Inference Mechanisms Boxes' (Stich & Nichols, 2003, p. 14). They start by saying that in order to have a belief or a desire with a particular content there must be a "representation token", which is content stored in virtue of its function. In other words, since beliefs and desires have different functions, the contents of these mental states will be stored differently. Consider Stich and Nichols' example:

> So, for example, to believe that Socrates was an Athenian is to have a representation token whose content is *Socrates was an Athenian* stored in one's 'Belief Box', and to desire that it will be sunny tomorrow is to have a representation whose content is *It will be sunny tomorrow* stored in one's 'Desire Box'. (2003, p. 15)

The central feature of their hybrid theory is the introduction of the 'Possible World Box' (PWB). Unlike belief and desire boxes, the PWB does not represent the world as it is or as one would like it to be. Rather, the PWB's function is to represent the way the world would be under a specific set of assumptions (Stich & Nichols, 2003, p. 28). They go on to say that the PWB could be used for a variety of tasks, e.g., "the PWB interacts with the Planner, enabling it to construct plans to be carried out in a variety of possible situations; it plays an important role in mindreading, and in the generation of empathy" (Stich & Nichols, 2003, p. 28)[15]. However, the central feature of their hybrid account is found in the way they describe how we generate predictions about how others will seek to satisfy their desires. In explaining this feature, they say their description "bears obvious similarities to the simulation prototypes" (Stich & Nichols, 2003, p. 135). As they say in further detail,

> On our account, the Planner uses information from the PWB which, as just noted, might be viewed as a more detailed elaboration of the pretend belief generator…Despite the differences, however, we think that the use we see for the Planner in mindreading is a reasonably close cousin to the simulation prototypes. (Stich & Nichols, 2003, p. 135)

Goldman (2006) has also offered a hybrid account of social understanding. Although Goldman argues that simulation plays the dominate role in our ability to understand others, he does acknowledge that some instances require a theory, e.g., he states that 'Retrodictive Mindreading' involves both simulation and theory. Briefly stated, Retrodictive Mindreading refers to how understanding someone's behaviour involves "working backwards" from the action to the prior mental state. In this case, the mindreader's goal is to understand the mental states that

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[15] It should be noted that the emphasis on the generation of empathy mentioned here is a major step towards integrating TT and ST.

caused a particular behaviour. In his words, "an attributor's main items of evidence for many target states are causal effects of those states, so the attributor's mind must proceed from known effects to sought-after causes" (2006, p. 186).

Goldman claims that simulation can have a role in this form of mindreading through 'generate-and-test strategies'. Here one generates a list of "hypothesized states" that might be the source of the (observed or inferred) behaviour, and then "tries out" these hypothetical states to see which is the source of the behaviour (2006, p. 184). However, ST faces a problem: how do we limit the amount of hypothetical states? Goldman's answer: theory; as he says, "This is presumably accomplished by theorizing methods, perhaps with the help of prior simulations. So it seems likely that a hybrid method is essential to the generate-and-test strategy" (2006, p. 184).[16]

I will now discuss the forms of empirical evidence various proponents of FP often cite when advancing their respective theories.

Empirical Evidence

The earliest form of empirical evidence for FP is David Premack and Guy Woodruff's (1978) study on whether chimpanzees have a theory of mind, which they define as:

> An individual has a theory of mind if he imputes mental states to himself and others. A system of inferences of this kind is properly viewed as a theory because such states are not directly observable, and the system can be used to make predictions about the behaviour of others. (Premack & Woodruff, 1978, p. 515)

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[16] In a review of Goldman's work, Peter Carruthers makes the following remark about Goldman's blending of both simulation and theory: "This is all music to the ears of the kind of theory-theorist who also allows an important role for simulation" (2006)

This study is important for several reasons. First, it spawned a series of questions concerning non-human social cognition (see Andrews 2007). It also made researchers question human social cognition further. As Carruthers and Smith note, this study forced "all psychologists to think very hard about what it *is* to possess a conception of the mind of another creature, and also about the behaviour which might show whether or not such a conception is possessed" (1996, p. 1). Carruthers and Smith (1996, pp. 1-2) also credit Dennett's commentary on Premack and Woodruff's paper as the inspiration for the false belief task, which some (e.g., Herschbach, 2008b, p. 37) have claimed is the paradigmatic example of mental state understanding

The false-belief task is a psychological experiment that tests a child's comprehension of another having a false belief. There are numerous variations of the false-belief task, but the traditional test developed by Hans Wimmer and Josef Perner (1983) runs as follows: A child is shown two puppets: Maxi and his mother. Maxi puts a piece of chocolate in a box and then leaves. While Maxi is gone, his mother takes the chocolate out of the box and puts it in the cupboard. When Maxi comes back to get his chocolate, the subject is asked "Where will Maxi look for chocolate?" Studies show that children between 4 and 5 were able to correctly point to the box, whereas younger children tended to point to the cupboard. Wimmer and Perner concluded that "a novel cognitive skill seems to emerge within the period of 4 to 6 years" (1983, p. 126). This skill, some have claimed, is a representational theory of mind, which is a model that holds that the relation between the mind and the external world is mediated by mental representations[17]. In addition, Baron-Cohen, Leslie, and Frith (1985) discussed an experiment that administered the false-belief task to autistic children, children with Down syndrome, and a group of normal children. It was found that 23 out of 27 normal children, and 12 out of 14

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[17] This will be discussed further at the end of the chapter, as well as future chapters.

Down's Syndrome children passed, but that 16 of the 20 autistic children failed (Baron-Cohen, Leslie & Frith, 1985, p. 42). The results from this experiment, as well as other similar experiments, were interpreted as evidence that autism impairs a specific capacity to mindread.

Another common source of empirical evidence concerns mirror neurons, which are a particular class of visuomotor neurons originally discovered in area F5 of monkey's ventral premotor cortex (Gallese & Goldman, 1998, p. 493). The defining feature of mirror neurons is that they become active both when performing a certain action and when observing another perform an action. For instance, the neurons firing in a monkey who grasps a banana are concurrently firing in another monkey observing this behaviour. It also important to note that mirror neurons fire for 'goal' related activity; not for any movement. There is also evidence that mirror neurons exist in human beings and some argue this plays a crucial role for social cognition and intersubjectivity (e.g., Rizzolatti and Arbib, 1998). In particular, Gallese and Goldman (1998) as well as Goldman (2006, Chapter 6) argue that mirror neurons support ST (specifically low-level mindreading), as they interpret mirroring as simulating the other's mental states, as opposed to TT and "mere theoretical inference" (Gallese & Goldman, 1998, p. 498). As they say, "MN [mirror neurons] activity seems to be nature's way of getting the observer into the same 'mental shoes' as the target – exactly what the conjectured simulation heuristic aims to do" (Gallese & Goldman, 1998, pp. 497-498).

Before I end this chapter, I want to highlight two aspects central to FP: the emphasis on prediction as well as the supposition of cognitivism.

Cognitivism

First, cognitivism is closely linked to FP, as Ramsey states that cognitivism acts as an assimilation of both FP and the computational theory of mind (CTM) (2007, p. 38). CTM argues that "the mind is a computer" where thinking is essentially computational in nature as it relies heavily on representations and rules (Jacobson, 2002, p. 358). Moreover, as Hutto (2013) explains, cognitivism argues that the content of our mental states are representations of the world and that cognition amounts to a rule governed manipulation of these representations; "Thus, the mind both represents and computes" (2013, p. 175).

One can see many examples of this throughout the presentation of the various theories of FP, especially TT. For instance, Gopnik states scientists use representations and rules in order to "uncover the truth about the world" and that science often gets it right because science "uses psychological devices that were designed by evolution precisely to get things right" (1996, p. 489). Since Gopnik's position on social cognition rests on an analogy between scientists and children, this implies that we understand each other through similar representations. Also reconsider Baron-Cohen's discussion of the four mechanisms involved in mindreading. For instance, as stated earlier but now with emphasis, Baron-Cohen claims that EDD involves three functions: first, it detects the presence of eyes, it "*computes*" where the eyes are looking, and lastly it "*infers*" from oneself that if the others eyes are looking towards something, then the other person perceives that object (1995, pp. 38-39)[18].

Furthermore, both ST and TT emphasise the manipulation and use of internal mental representations in order to understand other people, often through the representation of boxologies. For instance, consider Goldman's various boxologies depicting ways in which

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[18] Gallagher (2001, p. 81) notes that this claim seems more in line with ST.

simulation routines ascribe beliefs and desires to others. First, we must be clear on Goldman's

key: ovals represent beliefs, squares represent desires, double circles represent decisions,

hexagons represent decision-making mechanisms, and diamonds represent factual reasoning

mechanisms (2006, p. 27). In addition, desires are represented by squares and pretend desires are

represented by shaded squares (Goldman states that anything shaded represents pretense in

general) (2006, p. 28).

Now consider Goldman's figures 2.3 and 2.4:
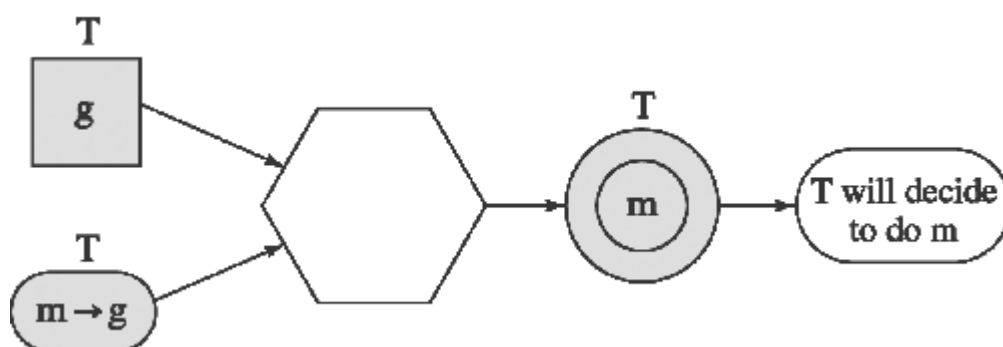
Figure 2.3. Decision attribution reached by simulation (2006, p. 29).
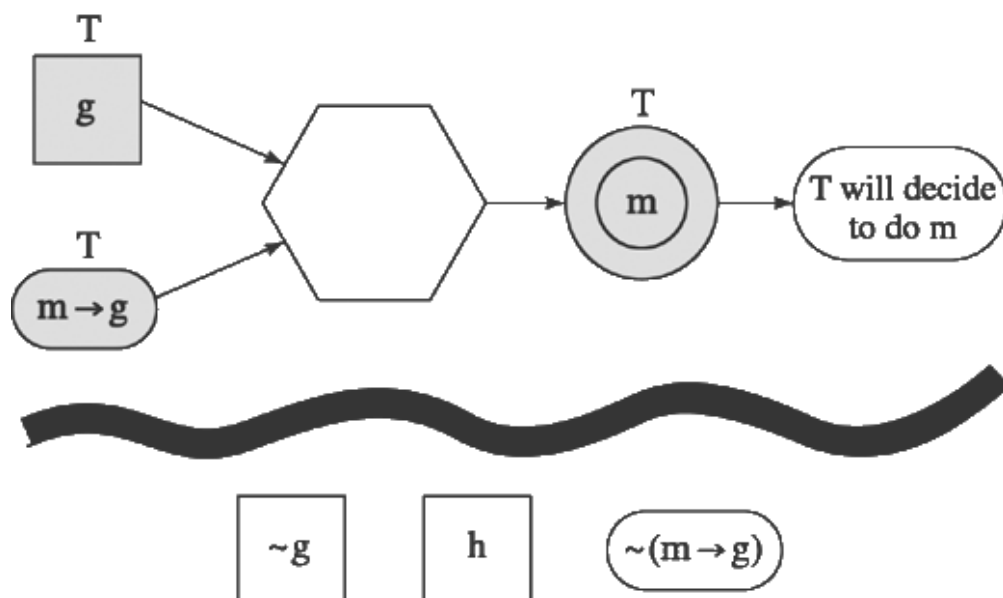
Figure 2.4. Decision attribution reached by simulation, showing quarantine (2006, p. 30).

In figure 2.3, we are presented with information that T desires g. This is then used to create a pretend desire for g (the shaded square with g in the middle as its content). The "T" above the square indicates that it is mentally associated with the target. The attributor also creates the pretend belief that is an effective means to achieve g, which is represented by m. So, if we do m, we will get g, i.e., m → g. The attributor then pretends to put himself in the "mental shoes" of the target in order to generate certain mental states. These states are used in a decision-making process (represented by the hexagon) and the result is the pretend decision represented by the shaded double-circle shape with m in the middle of the inside circle. As the last step, the attributor then makes a mental attribution by using the pretend decision in order to from a "genuine" belief that the target will make in order to make her decision. This is represented by the oval with "T will decide to do m" in the middle. Since this is supposed to be a "genuine belief", it is not shaded (Goldman, 2006, pp. 28-29).As these boxologies depict, Goldman takes the mind as a processing unit whereby the relevant information comes in the form of beliefs and desires, which are manipulated and formalised in accordance to specific mentalizing rules (e.g., m → g).

Another shared trait amongst the proponents of FP is the emphasis on prediction, which I will now briefly highlight.

Prediction

Throughout my presentation of FP, most parties agree that social understanding has two functions: explanation and prediction, However, these functions are not treated equally, as Andrews states that, according to the proponents of FP, "the *primary* function of folk psychology

is the prediction of behaviour" (2007, p. 191). Arguably the strongest proponent of the relationship between FP and prediction is Dennett, who says "… our power to interpret the actions of others depends on our power…to predict them" (Dennett, 1991b, 29). In addition, in responding to arguments that FP may, or should, be eliminated, Dennett points to the success of FP's predictive capabilities. More than this, Dennett makes the stronger claim that without FP's predictive power, we would not be able to understand each other. In his words,

> Folk psychology helps us understand and empathize with others, organize our memories, interpret our emotions, and flavor our vision in a thousand ways, but at the heart of all these is the enormous predictive leverage of folk psychology. Without its predictive power, we could have no interpersonal projects or relations at all; ... we would be baffling ciphers to each other and to ourselves (Dennett, 1998, pp. 97-98).

Andrews also notes that since FP is the "simplest" predictive device available, proponents of FP suggest that we use FP when we make all sorts of predictions (2007, p. 192). For instance, she describes how FP is used to understand two different kinds of future behaviour. The first is Dennett's example of using FP to predict that someone will duck if you throw a brick at him (Dennett, 1998). She also uses Fodor's example that we would employ FP to predict that you will arrive on the 3 p.m. flight if you say you'll arrive on the 3 p.m. flight (Fodor 1987). These are different ways of understanding future behaviour as Dennett's example appears to be more direct and interactive, whereas Fodor's example, in contrast, appears more reflective. Rather than invoking a specific method of understanding these different ways of understanding future behaviour, FP is called upon due to its simplicity of FP.

More than FP's wide scope, Andrews also notes that without FP's predictive capabilities, we would not be able to make such predictions. As she states,

> The claim here is that without a folk psychology, predictions of behavior would not get made routinely, easily, and accurately (enough) across domains. In a world without folk psychology, we would not be able to predict that someone would duck if a brick were thrown at him, nor would we be able to predict that you will arrive on the 3 p.m. flight given that you said you will arrive on the 3 p.m. flight. (2007, p. 192)

Therefore, there is strong evidence that the central aspects of FP are its commitment to cognitivism and its focus on prediction.

Conclusion

I emphasised cognitivism and prediction here in order to set the narrative of the remaining chapters of this thesis. For instance, I go on to argue in favour of a way in which we can understand another's future behaviour that does not require the attribution of beliefs and desires. This will undermine FP's adherence to cognitivism as well as the claim that FP is central to the way we understand future behaviour. However, before I do that, I must first explain the interactionists' various positions against the proponents of FP and then defend the interactionists' positions against some critics. The next chapter addresses the former; chapter 3 addresses the latter.

Chapter 2: The Interactionists' Alternatives to FP

As discussed in chapter 1, Fodor claimed that FP was the only game in town (1975, p. 55). This point was, and often still is, taken for granted, which is evidenced by the fact that the debate about social understanding is primarily concerned with how we attribute propositional attitudes towards others and not whether this is central to social understanding. However, there have been several alternatives introduced recently that move beyond TT and ST and their various hybrids. For example, Dan Hutto argues that, "even in understanding the reasons for which others act, including adults, we often do not make any attribution of beliefs and desires *at all*" (2004, p. 558). In this chapter, I focus on the interactionists (which includes philosophers such as Shaun Gallagher, Dan Hutto, Dan Zahavi, Matthew Ratcliffe, and others) and will explicate their respective objections and alternatives to FP.

This chapter presents several central aspects of the interactionists' challenges and alternatives to FP. For instance, Gallagher has recently proposed four presuppositions that the interactionists centrally challenge[19]. The first is FP's supposition of 'hidden minds'. Here FP assumes that since we do not have direct access to others' mental states, we attribute propositional attitudes, e.g., beliefs and desires in order to explain and predict their behaviour. In Gallagher's words, "Since we cannot directly perceive the other's beliefs, desires, feelings, or intentions, we need some extraperceptual cognitive process (mindreading or mentalizing by way of theoretical inferences or simulation routines) that will allow us to infer what they are" (2012, p. 188). This leads to the second and third suppositions that 'mindreading' is pervasive and that

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[19] Gallagher's list of presuppositions is a helpful way of demarcating the interactionists from most of the proponents of FP as well as most other critics of FP. For instance, Kristin Andrews (2008) argues that FP is used infrequently, but Andrews is not an interactionist.

we take an 'observational stance' in order to understand others. All of this culminates in the fourth supposition that FP is 'methodologically individualistic' whereby we our ability to understand others depends primarily on "cognitive capabilities or mechanisms located in an individual subject, or on processes that take place inside an individual brain" (Gallagher, 2012, p. 188).

My presentation will follow Gallagher's characterisation of the interactionists' position. First, I present the interactionists' challenge that mental states are not observable and their account that some mental states are embodied and observable, making the need for mental state attribution to others unnecessary. Second, I discuss the interactionists' claim that the primary stance we take when dealing with others is second-person, not third-person observation. Third, I also explain the position that argues that even when we attribute beliefs and desires, we need not rely on either TT or ST, e.g., the 'narrative practice hypothesis' (NPH). Fourth, I present the more extreme argument against FP that claims it has "no psychological reality" (Ratcliffe, 2007a, p. 224). I also discuss the various arguments the interactionists make against the supposed empirical evidence for mindreading.

Embodiment

As discussed in Chapter 1, the proponents of FP claim that we understand others by explaining and predicting their behaviour through the attribution of propositional attitudes. However, as Gallagher points out, the proponents of FP often rely on several key underlying assumptions. First, to 'know' or to 'understand' someone in the FP literature is to "know that

person's mind", e.g., their beliefs, desires or intentional states" (Gallagher, 2001, p. 91). It is also

assumed that these mental states are hidden. Recall Sellars' example of not understanding why

Smith took the high path to the waterfall discussed in Chapter 1. Since Jones did not have access

to Smith's mental states, Jones created a theory that ascribed reasons as theoretical entities to

Smith in order to understand Smith's behaviour. Therefore, as Gallagher points out, since the

proponents of FP believe we do not have direct access to another's mental states, "we either

postulate what their beliefs or desires are on the basis of a set of causal-explanatory laws (theory

theory) or we project the results of certain simulation routines" (2001, p. 91).

However, as Gallagher also points out, this is *assumed*, which he calls the *mentalistic*

supposition (2001, p. 91).To challenge the mentalistic supposition, Gallagher introduces

'Interaction Theory' (IT) as an alternative to orthodox accounts of FP, which argues that in some

cases we have direct access to others' mental states. As Gallagher states, "The basic claim that I

will defend is that in most intersubjective situations we have a direct, pragmatic understanding of

another person's intentions because their intentions are explicitly expressed in their embodied

actions" (2001, p. 86).

A central element to Gallagher's IT is 'direct perception' (2001, 2007, 2008, 2009a),

which is perception without some further cognitive or inferential step that goes beyond what is

perceived. For example, as I write this section, I am in a computer lab overlooking a coffee

house where I can see two people are laughing while engaging in a conversation. According to

direct perception, I do not infer from their bodily behaviour that they both have respective mental

states of 'happiness'. Rather, I simply see they are happy, as their happiness is present in their

behaviour. In this sense, Gallagher advocates a kind of 'bodyreading' rather than 'mindreading'.

As support, Gallagher draws from number of different sources. For instance, within the phenomenological tradition, Gallagher appeals to Max Scheler who says the following:

> For we certainly believe ourselves to be directly acquainted with another person's joy in his laughter, with his sorrow and pain in his tears, with his shame in his blushing, with his entreaty in his outstretched hands . . . And with the tenor of this thoughts in the sound of his words. If anyone tells me that this is not 'perception' ... I would beg him to turn aside from such questionable theories and address himself to the phenomenological facts. (1954, pp. 260–1)

Also, Gallagher refers to Wittgenstein who says,

> 'We see emotion.' – As opposed to what? – We do not see facial contortions and make the inference that he is feeling joy, grief, boredom. We describe a face immediately as sad, radiant, bored, even when we are unable to give any other description of the features. – Grief, one would like to say, is personified in the face . . . In general I do not surmise fear in him – I see it. I do not feel that I am deducing the probable existence of something inside from something outside; rather it is as if the human face were in a way translucent and that I were seeing it not in reflected light but rather in its own. (Wittgenstein, 1980, §§570, 170)

Gallagher also draws support from psychology by appealing to Colwyn Trevarthen's (1979) distinction between 'primary intersubjectivity' and 'secondary intersubjectivity'. Briefly stated, primary intersubjectivity refers to the capabilities that contribute to an "immediate, non-mentalizing mode of interaction" (Gallagher & Hutto, 2008, p. 4). Gallagher lists some of the following as examples of primary intersubjectivity: "imitation, intentionality detection, eye-tracking, the perception of intentional or goal-related movements, and the perception of meaning

and emotion in movement and posture" (2001, p. 90). It should also be noted that primary intersubjectivity often includes some of the same phenomena used to support FP, e.g., Baron-Cohen's four mechanisms involved in mindreading discussed in Chapter 1. However, as Gallagher and Hutto note, an infant does not need to rely on a theory or to simulate another person in order to see "bodily movement as goal-directed intentional movement, and to perceive other persons as agents" (2008, p. 4). Therefore, it is argued that much of the interpretation the proponents of FP give to these phenomena is an over-intellectualisation.

Building on the abilities constitutive of primary intersubjectivity, secondary intersubjectivity refers to the ability to "tie actions to pragmatic contexts" (Gallagher & Hutto, 2008, p 4). Around the age of one, infants, building on "person-to-person immediacy of primary intersubjectivity", begin to develop an ability to engage in shared attention where "they learn what things mean and what they are for" (Gallagher & Hutto, 2008, p. 4). For example, at the stage of secondary intersubjectivity, children are able to look to the world to do "some of the work". Here children are able to understand relevant aspects of the environment around them to make sense of others' actions. Gallagher points to a number of studies that show that "Children at 18 months are capable of recognizing uncompleted intentions of others because they know from the setting and the instruments at hand what the person is trying to accomplish" (2009b, p. 294). Again, rather than appealing to unperceived mental states of others, children make use of a number of environmentally salient factors to make sense of the behaviour of others.

Although primary and secondary intersubjectivity focus on abilities that infants and young children possess, Gallagher also claims that many of these abilities are at the core of our adult understanding of others (2009b, p. 293). If this is the case, then the core claim of FP is undermined. Recall, according to the proponents of FP, social understanding centrally involves

the attribution of beliefs and desires. However, if Gallagher is correct, then we do not use FP in most instances, as the abilities described in primary and secondary intersubjectivity are often all that is needed. Additionally, when we do use FP, we also utilize the abilities described in primary and secondary intersubjectivity. Therefore, the attribution of propositional attitudes is not central to social understanding.

Gallagher, however, does not completely dismiss FP. Rather, he says that FP is the exception, not the rule (2007b, p. 356). To further explain this point, Gallagher (2001, 2005) argues that the debate about social understanding is divided between two claims: developmental claims and pragmatic claims. Developmental claims are concerned with when a child achieves a representational theory of mind and primarily "involve the timing and order of development, the importance and balance of innate mechanisms versus experience, and so forth" (Gallagher, 2005, p. 207). On the other hand, pragmatic claims, which are either strong or weak, question whether our primary mode of understanding others involves FP. The strong pragmatic claim is that the attribution of beliefs and desires is central to social understanding whereas the weak pragmatic claim says that the attribution of beliefs and desires is not central to social understanding. For instance, although Gallagher rejects the strong pragmatic claim, he accepts the weak pragmatic claim that theory of mind is a very narrow and specialized skill that we sometimes use (2001, p. 85). For the most part, the interactionists focus on pragmatic claims, as they question the scope of FP. In doing so, they argue against the strong pragmatic claim, but there is some disagreement about the weak pragmatic claim. Where Gallagher rejects the strong and accepts the weak pragmatic claim, Matthew Ratcliffe rejects both (2006, p. 37). However, before I present Ratcliffe's arguments, I address the interactionists' arguments concerning the stance taken towards others.

Interaction

The interactionists often target the proponents of FP's stance taken towards others. For instance, Ratcliffe identifies the proponents' of FP stance as: "Interpersonal understanding is best construed in terms of the detached observation of person B by person A" (2007b, p. 22). Hutto concurs and refers to FP's detached stance as a "spectators' sport" (2004, p. 565), as the proponents of FP assume that we are at a "theoretical remove from others" (Hutto, 2004, p. 549). In response, the interactionists raise two similar, yet distinct, arguments regarding the stance taken towards others. The first is that the proponents of FP mistakenly assume our primary mode of understanding others is from a third-person observational stance and neglect the second-person perspective. The other is that the proponents of FP mistakenly characterise the stance taken towards others as an impersonal stance.

Central to the interactionists' arguments against the stance taken towards others in the debate about FP is the phenomenological difference between understanding someone as a 'you' and understanding another as a 'he', 'she', or an 'it' (Gallagher, 2001, p. 99 & Ratcliffe, 2007b, p. 153). Whereas the latter is an example of third-person observation, the former is of a second-person interaction. For instance, one can see the importance of the distinction between second-person interaction and third-person observation to Gallagher's (2001) argument that primary and secondary intersubjectivity comprise our primary way of understanding others. There, Gallagher argues that our primary way of understanding others involves direct perception and interaction between others. This is furthered by Zahavi who says that "In most intersubjective situations, we have a direct understanding of the other person's intentions, since these intentions are manifested

in the person's behaviour and embedded in a shared social context", and continues that these interactions are not detached observations of what another person is doing (2007, p. 38).

However, Ratcliffe (2006) argues that the third-person observational stance is not the problem with the stance taken by some proponents of FP. Ratcliffe draws two points. First, the third-person is not necessarily impersonal. Second, the third-person perspective encompasses a number of stances. Starting with the second point and appealing to Peter Goldie's (2000) work, Ratcliffe argues that taking a third-person perspective to understand another person does not entail we regard that person as a thing, and also that a third-person perspective "conflates many different stances" (2006, p. 44). Here Ratcliffe lists several examples:

> One might adopt a third-person stance towards somebody out of dislike, as a refusal to engage with them as 'you'. One might do so because communication is physically impossible. One may retain a distance out of respect, fear or shyness. One can also regard another person with the aim of manipulating them, one may sympathise with them, feel pity for them or adopt a stance of curiosity towards their behaviour. (2006, pp. 46-47)

However, some of the proponents of FP adopt a "wholly detached", "impersonal stance of scientific enquiry" (Ratcliffe, 2006, p. 42) when engaging in social understanding. For instance, consider the following quote that illustrates the impersonal stance taken by some proponents of FP: "According to [TT] other people are objects in our environment, and the task of understanding them is no different, in principle, from the task of understanding the behaviour of other, more inert, objects . . ." (Stone & Davies, 1996, pp. 126–127). According to Ratcliffe, understanding others in the same way we would understand "quartz crystals" amounts to an "indifference to personhood", which would be "an absence of intersubjectivity" (2006, p. 47).

Unlike the detached perspective of FP, the interactionists (specifically Ratcliffe) often argue that our primary stance taken towards others is a personal, interactional stance. Two examples will illustrate the distinction between an impersonal stance and a personal stance more clearly. First, whenever teaching an introductory class on Kant's 'ends/means' formulation of the categorical imperative, I often appeal to the movie *Silence of the Lambs*. In particular, I refer to the scene where Buffalo Bill shouts to his victim: "It puts the lotion on its skin". The point I draw to my students is how Buffalo Bill's character objectifies his victim by referencing to her as an 'it', treating her simply as a means to end. Using this more extreme example allows us to explore the 'normal' stance taken towards others in everyday interactions. For instance, I also provide a less violent example to illustrate our aversion to referring to someone as an 'it'. I have asked my students what they thought the reaction of new parents would be if they were asked this question of their child: "What is its name?" My students were quick to respond and say that it was likely the new parents would correct the question and say that "He (or she) is not an it". Again, this example illustrates that the stance taken towards others in everyday interactions is not a cold, objective, impersonal stance.

The interactionists' alternative is to focus on the interaction between others. For instance, Ratcliffe states, "Second-person understanding is not a detached, theoretical process but a form of interaction" (2006, p. 34). Consider the importance of interaction between others evidenced in simple conversations. As Ratcliffe notes, everyday conversations between people are not "facilitated by two discrete thinkers interpreting each other by ascribing internal mental states" (Ratcliffe, 2006, p. 37). Rather, such conversations with others often 'have a life of their own', as both agents are affected and respond to the dynamic relationship of the conversation itself. In Ratcliffe's words,

When meeting somebody for a chat, we seldom have a pre-prepared, exhaustive

list of discussion topics and viewpoints. Indeed we very often do not have a clue

what we will talk about. Instead, the conversational narrative takes form through

our interactions with each other. Facial expressions, body movements and verbal

tones interact in intricate ways and seem to flow in harmony with the words

spoken. (2006, p. 37)

Building on the role of interaction, Ratcliffe asks us to consider an example of viewing a

house with the possibility of buying it. Rather than saying that your assessment of the house is

"independently formulated and *then* socially mediated" (Ratcliffe, 2006, p. 39), it is more like

our assessment develops from the interaction between self and other. As Ratcliffe describes, "It

is more often a case of evaluations emerging through the interplay of mutual gaze, expression,

'hmms' and 'ahhs' and, of course, comments. The assessment that one leaves with is neither that

of A nor B nor a mixture of what A thought and B thought. It emerges from the interaction

between them" (Ratcliffe, 2006, p. 39).

The emphasis on interaction is also made explicitly by Hanne De Jaegher and Ezequiel

Di Paolo who critique the proponents of FP for wrongfully assuming that we understand others

by trying to "work out each other's minds much like they do with scientific problems" (2007, p.

486). They also agree that some interactionists are right to emphasise an embodied alternative,

but De Jaegher and Di Paolo claim some of the interactionists "have not yet gone far enough in

taking the interaction process as central" (2007, p. 489)[20].

De Jaegher and Di Paolo's positive position is 'participatory sense-making' (PSM),

which they refer to as the way in which the interaction itself generates its own meaning. In their

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[20] Specifically targeting Gallagher, De Jaegher and Di Paolo argue that although he recognises the importance of interaction, Gallagher does not "integrate a rich account of the interaction process" into his account of IT (2007, p. 489).

words, PSM is "the process of generating and transforming meaning in the interplay between interacting individuals and the interaction process itself" (Fuchs & De Jaegher, 2009, p. 466). Although this concept is explained in further detail in later chapters, briefly stated PSM is best understood through the phenomenon of coordination between agents. When we coordinate with another person, we have to adapt and respond to the other in a way that would be absent if we were to perform the activity alone. PSM describes the way in which the interaction and understanding emerges from the coordination itself.

As they say in further detail,

> Something that is not so common in cases of purely physical coupling, but that we find in the social domain, is that patterns of coordination can directly influence the continuing disposition of the individuals involved to sustain or modify their encounter. In this way, what arises in the process of coordination (e.g. gestures, utterances and changes in intonation that are sometimes labelled as back-channeling or turn-repair, etc.) can have the consequence of steering the encounter or facilitating (or not) its continuation. (De Jaegher & Di Paolo, 2007, p. 492)

De Jaegher and Di Paolo conclude by saying that discussions of social understanding that does not take into account the relational dynamics of interaction is not an interactive account and "probably not even a social one, despite the goodwill driving it" (2007, p. 494).

Neither Theory nor Simulation

Some interactionists further argue that, even when we do engage in FP, we do not engage in either TT or ST. For instance, in advancing his alternative to orthodox accounts of FP, Hutto agrees with the interactionists that FP has a limited role in social understanding (2008b, p. 178), but he also claims we sometimes need to understand others in terms of their reasons, which may involve understanding others' mental states such as their beliefs and desires. Therefore, Hutto accepts FP's explanandum in some cases, which he calls 'FP-competence'. As he explains in further detail,

> What should not escape our notice is that proponents of all of the above accounts recognize that making sense of FP requires giving an account of its structural basis. The game is to explain this in terms of the possession and use of FP principles or something else that plays that role. Let us designate this explanandum, of interest to all parties in this debate, *core* FP-competence or FP-competence for short. (Hutto, 2008b, p. 177)

Rather than advocating a version of either TT or ST (or a hybrid of both), Hutto introduces the 'Narrative Practice Hypothesis' (hereafter NPH) as a new alternative in the debate about social understanding. Unlike TT and ST, Hutto's alternative argues that we gain FP competence via 'folk-psychological narratives' (or simply FP narratives).

> The NPH assumes that kids already have a practical grasp on what it is to have a desire or belief before learning how to integrate their discrete understanding of these concepts in making sense of actions in terms of reasons. FP narratives enable this by showing how these core attitudes and other mental states behave *in situ*. Through shared encounters with FP narratives children become familiar with

the forms and norms of giving and asking for reasons, knowing how and when

these apply. (2008b, p. 178)

As Hutto explains, a FP narrative is an account that discusses the reasons for someone's behaviour. More specifically, these FP narratives are of a "special sort" whereby they "display the ways in which the psychological attitudes of the principal players interact with each other and other kinds of psychological states" (2008b, pp. 177-178).

Although Hutto highlights the importance of such stories as *Little Red Riding Hood*, the content of the stories are not all that matters. In other words, he is not concerned specifically with wolves, grandmothers, and red coats. Rather, he is concerned with the ways in which 'belief' and 'desire' operate in these narratives. Furthermore, Hutto also emphasises the importance of how children interact with the stories in a broader context. In other words, rather than simply focusing on the story itself, we also have to pay attention to how the child interacts with the story-teller (e.g., the child could ask questions about the characters and so on). In fact, Hutto claims it is normal for caregivers to get the child to focus on the thoughts and feelings of the story's characters while also highlighting the contextual factors of the story. We also have to pay attention to how the child retells the story to his or her friends and family. For example, I recall listening to one of my friend's reading *Little Red Riding Hood* to his daughter as a bedtime story.

In this instance, they were discussing the scene where Little Red Riding Hood was questioning the Big Bad Wolf who was dressed in Little Red Riding Hood's grandmother's clothes (e.g., "Grandmother, what big teeth you have"). My friend's little girl asked her father why Little Red Riding Hood was not scared of the wolf. My friend contextualized the scene by explaining further that Little Red Riding Hood did not immediately know the Big Bad Wolf was

in fact a wolf, as he was in disguise. By explaining and emphasising the contextual factors like this, my friend furthered Hutto's point that developing FP competence through these narratives is not a static event. In other words, children are often encouraged to actively engage with the stories. For example, the child could be encouraged to ask why the characters did what they did, the storyteller could use different voices to denote different characters (which can explicitly highlight different personality traits, add emotive tone to specific lines, and so on), or the story-teller could interject and explain relevant details that are missing from the text in order to contextualise the motivations for action to the listener. Engagement like this allows the story-teller to further introduce FP competence to the child. As Hutto says, "Such exchanges are a mix of dramatic re-enactment, contextualisation, and exposure to further examples, all of which prompt further requests from listeners and opportunities for correction from the story-tellers" (2007, p. 55).

After explaining the central components of the NPH, Hutto is quick to show that it is not compatible with orthodox accounts of FP. For instance, he clearly states that FP-competence does not "equate to or derive from" either a learned theory or from a tacit theory (i.e., a position consistent with either the child-scientist or nativist version of TT) or from ST (2008b, p. 178). Regarding ST, Hutto says that even in the cases where we may employ "simulative abilities" (e.g., we could ask a child to imagine what she would do if she were Red Riding Hood), ST is not the source of developing FP-competence. In Hutto's words, ST is not what permits us to "'project' the core FP 'principles' onto others or ourselves when it comes to understanding reasons" (2008b, p. 178).

To support the distinction between the NPH and orthodox accounts of FP, Hutto highlights the former's reliance on practical reasoning and the latter on theoretical reasoning. For

example, Hutto argues engaging in these narratives introduces mental states (such as 'beliefs'

and 'desires') to children as well as how important situational and contextual factors play a rule

in social behaviour. As Hutto says,

> By participating in this kind of narrative practice children become familiar with
> the way the core propositional attitudes, minimally belief and desire, behave with
> respect to each other and their familiar partners: emotions, perceptions, etc. More
> than this, in such stories a person's reasons are shown in situ; against appropriate
> backdrops and settings. For example, children learn how a person's reasons can
> be influenced by such things as their character, history, current circumstances and
> larger projects. (2007, p. 53)

To further the claim that NPH is a matter of practical reasoning, Hutto argues that, unlike

the orthodox accounts (specifically TT), children do not develop FP competence as a matter of

following a specific set of rules; "This is not a process through which children distil a set of

general rules" (Hutto, 2007, p. 56). Hutto does note that intentional psychology is a "constant in

all folk psychological narratives" (2007, p. 61), but our ability to engage in narratives is not a

matter of following a rule, as each narrative has important, particular variations. As examples,

Hutto points to how various character traits, their historical backgrounds and the general context

of the story itself affect the ways in which the various characters behave in their respective

stories. The important part is that these features "differ from story to story, within a single story

over time, and often from protagonist to protagonist within the same story" (Hutto, 2007, p. 61).

If it was a matter of following a rule, then one could apply the general rule to all stories.

However, no such rule exists. More importantly, if there was such a rule, we would still face the

problem of knowing when to apply the rule given the wide variations in such stories, which, as

Hutto says, is "necessary for the skilled application of folk psychology" (2007, p. 61). He also

states that narratives develop this practical knowledge by having children engage in the story-

telling as described earlier. For instance, having the story-teller adopt different voices and

mannerisms for different characters allows the child to perceive characters in further detail.

Furthermore, the story-teller can inform the child of the characters' "specific background beliefs

and desires, particular agendas, unique histories, personality traits and so on" (Hutto, 2007, p.

61), which are all used in order to establish why one particular character acted in one way and

why another character may act differently given her specific background beliefs and desires, and

so on.

Hutto also argues that narratives, as opposed to restricting our understanding of others to

propositional attitudes, account for a wider, richer account of social understanding:

> Sustained experience with folk psychological narratives primes us for this richer
>
> practical understanding by giving us an initial sense of: which kinds of
>
> background factors can matter, why they do so, and how they do so in particular
>
> cases. Stories can do this because they are not bare descriptions of current beliefs
>
> and desires of idealised rational agents—they are snapshots of the adventures of
>
> situated persons, presented in the kinds of settings in which all of the important
>
> factors needed for understanding reasons are described; those that are relevant to
>
> making sense of what is done and why. (2007, p. 63)

Orthodox accounts, however, are notoriously narrow in their explanations. To further his

point, Hutto provides the following personal example. He was about to leave the country for a

period of time and had arranged to have his car to be serviced while he was gone. The plan was

that he would drive his car to the garage, and his wife would pick him up there and continue to

the airport. While following his wife to the garage, she unexpectedly took the wrong turn to go to the garage. Hutto thought this was strange since she was the one who made the arrangements with the garage. The crux of the example is how are we (or more importantly Hutto in this specific situation) able to explain her actions? In his words,

> At this point, I was faced with a rather tricky interpretative problem. Given that my wife is very competent and reliable, lacking any malicious streak or any reason to act so, I was at an utter loss to make sense of her actions. Although a number of possible explanations sprang to mind, knowing my wife, none of these looked plausible. I was unable to make any sense of her actions. (Hutto, 2004, p. 569)

He claimed that no theory of mind would have been helpful as they could not "narrow the field of possibilities nearly enough" (2004, p. 570). As he explains further,

> For nothing ensures in any given instance that an action, even if it is not irrational, stems from a fixed set of dispositions: It is always possible the person is, in fact, acting 'out of character' or is spurred on by an unpredictable emotion. Moreover, many situations have novel features that we just cannot guess accurately. (2004, p. 570)

The only satisfying answer came when his wife explained that, although she had made the appointment at the garage, she mistakenly thought it was another garage in the next village. According to Hutto, "the point is that neither core theory theory nor simulation theory, nor the two in concert, could have reliably generated this explanation. This matters because it is explanations of just this sort that we require – and regularly get – in our everyday affairs" (2008,

p. 19). Hutto concludes that the orthodox accounts of TT and ST are of limited use; they are not central to our ability to understand others.

No Psychological Reality

Although Ratcliffe essentially agrees with both Gallagher and Hutto's arguments against FP, Ratcliffe goes further in his arguments against FP than the other interactionists presented earlier. For example, unlike Gallagher who rejects the strong pragmatic claim and accepts the weak pragmatic claim, Ratcliffe rejects both (2006, p. 37). Moreover, he argues that once we see the vast limitations of FP[21], "we get to the point where we might as well give up on talk of a 'belief-desire psychology' altogether" (2009, p. 404). Ultimately, Ratcliffe argues that FP "has no psychological reality", but is an "abstract philosophical systematisation of social life, the utility of which is unclear" (2007a, p. 224). I divide my exposition of Ratcliffe's arguments against FP into three parts: the first focuses on the so-called 'commonsense' aspect of FP, the second concerns the scope of FP and the third addresses the vagueness surrounding the terms 'belief' and 'desire' used in FP.

Commonsense?

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[21] For instance, Ratcliffe argues that: "most human interactions do not require FP, …interpersonal understanding includes much that does not fit into FP,…reason explanations do not always require FP, … explanations and narratives are frequently more nuanced than FP and … 'belief' and 'desire' are not as tidy as is often assumed..." (2009, p. 404)

Ratcliffe challenges the so-called 'commonsense' aspect of FP by drawing a distinction between "commonsense views" and "debatable philosophical positions" (2007a, p. 224). As Ratcliffe notes, many in the ToM literature regard FP as 'commonsense', as the proponents of FP presuppose FP is central to social understanding. Although the term 'common sense' can be understood in various different ways[22], one way is to say that something is a matter of common sense if it is obvious to everyone, as it is a matter of 'common knowledge'. To make this point clearer, allow me to take a quick detour to discuss a similar point in Gallagher's work against explicit ST.

For instance, since the proponents of ST claim that simulation is pervasive, Gallagher argues there should be some phenomenological evidence that we use this method in order to understand others. In other words, since it is pervasive, it should be a matter of 'common sense' that we should be aware that we do this often. However, this does not seem to be the case. In Gallagher's words,

> If simulation is both explicit and pervasive, then one should have some awareness
> of the different steps that one goes through as one consciously simulates the
> other's mental states. But there is no phenomenological evidence for this; there is
> no experiential evidence that I use such conscious (imaginative, introspective)
> simulation routines when I interact with or come to understand another person.
> That is, when we consult our own common experience of how we understand
> others, we just don't find such processes, and that is puzzling if they are supposed
> to be explicit and pervasive. (2007b, p. 356)

Gallagher is clear that he does not say we never use simulations, as there might be some instances when we do, or, perhaps, must use simulation. However, when we do simulate another

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[22] See Ratcliffe (2007b) for further elaboration on this issue.

person through explicit ST, we are quite aware of the fact that we are using this method (Gallagher, 2007b, p. 356). One reason why we are aware of this is that simulation "tends to be the exception, and it tends to stand out in its rarity" (Gallagher, 2007b, p. 356). A similar point could be made about the pervasiveness/common sense aspect of FP. If FP were common sense, then we should be aware of it in our ability to understand others. However, as Ratcliffe shows, this is not the case.

To test whether FP is in fact a common sense position, Ratcliffe conducted informal experiments with his students. In one instance he asked fifteen second-year undergraduates at the beginning of a lecture series on intersubjectivity "what does our ability to understand other people consist of?" (Ratcliffe, 2006, p. 32). In another instance, he asked a tutorial group of second-year philosophy undergraduates who were halfway through a philosophy of mind course who have already been given three lectures on intentionality but were not yet familiar with the term 'folk psychology' the following question:

> What is central to your understanding of others? To put it another way,
> understanding or interacting with another person is very different from
> understanding or interacting with a rock. What does that difference consist in?
> Please state your intuitive or commonsense view rather than stating philosophical
> positions or engaging in philosophical argument. Write up to half a side of A4 and
> return it to me at next week's tutorial. (2007a, p. 227)

In the first experiment, even after "trying to steer them in the direction of FP", Ratcliffe found that no one said anything about FP, e.g., no one mentioned "beliefs, desires, intentional states, prediction or explanation" (Ratcliffe, 2006, p. 32). The second experiment had similar

results. He said of the twenty-five responses, there was a wide range of factors the students

listed, some of which were:

> "Can understand me in conversation."

> "Can detect their emotions through facial expression and body language."

> "Can relate to my plight."

> "An understanding of why we do certain things in certain situations."

> "Difficult to say exactly […] lots of things."

> "Empathy."

> "You can interact with others and see the way people react to things."

> "They act similarly to us."

> "It's when you're in Kingsgate bar with some friends, having a drink, when Franz
> Ferdinand comes on the radio and you notice that everyone in the bar has started
> nodding along to it…and so have you."

> "Reactions and engagement – able to interact in the world."

> "We don't understand everyone! e.g. psychos, scientists." (2007a, p. 228)

Given the students' responses in both cases did not mention anything resembling FP,

Ratcliffe says that FP is not a commonsensical view. In his words, "as my students illustrated,

we are not explicitly aware of employing FP during the majority of our interpersonal interactions

or even upon reflection. Hence FP cannot be a piece of unadulterated commonsense" (Ratcliffe,

2006, p. 32). Furthermore, the wide ranging responses suggest that there is "no explicit, shared,

commonsense conception of everyday social understanding" (Ratcliffe, 2007a, p. 228). Rather, it

seems to support the claim that social interaction consists of a variety of skills and techniques.

Even after Ratcliffe offered FP as a possible answer to how we understand others, students did not show any sign of recognition or "eager assent" (2007a, p.228). The idea here is that if FP was commonsense and the students were simply unable to articulate it, the students should have responded more animatedly when the professor described FP. However, this was not the case. Although the students later came to accept FP, they did so "after five lectures on folk psychology, theory of mind and simulation" (2007a, p. 228), which is not an endorsement of FP. As he explains, accepting such a "philosophical viewpoint" through "conformity, indoctrination or rational deliberation" does not entail that FP is a commonsense view that was in place before discussing it in a philosophy course (Ratcliffe, 2007a, p. 228). As he concludes,

> All this suggests that FP is in fact something that has been made explicit through philosophical reflection. It is a philosophical account of the structure of everyday interpersonal understanding, rather than a commonsense description of something that we do. The labels 'folk' and 'commonsense' are therefore misleading. (Ratcliffe, 2007a, p. 230)

Scope

Ratcliffe also questions the supposed scope of FP, arguing that "FP is not needed at all in some social situations and that is relevance to others is debatable" (2007a, p. 224). For instance, Ratcliffe asks us to consider an everyday situation such as navigating around a busy train platform. In this situation, saying that we attribute beliefs and desires to everyone we encounter is an enormous and unnecessary burden on our cognitive resources (Ratcliffe, 2007a, p. 231).

Rather, it is often enough to appeal to a shared understanding of how various environmental factors function. In such situations, we could "off-load" much of the cognitive burden on our social environment (Ratcliffe, 2006, p. 44). For instance, knowing how escalators, ticket machines, platforms, trains and signs function is often enough in such a social situation. We do not need to attribute beliefs and desires to anyone. As Ratcliffe says, "Mental states do not need to be assigned, as the assumption that others will do 'what one does' in this kind of equipmentally configured environment is usually sufficient" (2007a, p. 231).

Another potential candidate for FP is strategic interactions, as understanding the mental states of another might be more pertinent here than everyday encounters. However, Ratcliffe, again, shows that FP is not always involved here either. Consider Ratcliffe's discussion of football, which will also be discussed further in Chapter 6 of this thesis.

> In the 1996 European Championships, Paul Gascoigne scored the second goal for England against Scotland by sprinting forward without support, lobbing the ball over the head of Scottish defender Colin Hendry, running round him and then kicking it into the corner of the net past goal keeper Andy Goran. (Ratcliffe, 2007a, p. 232)

Although this example clearly involved strategy, Ratcliffe argues it did not involve FP. First, the speed of Gascoigne's responses suggests that he had no time for deliberation (Ratcliffe, 2007a, p. 232). Rather, Ratcliffe argues that Gascoigne's actions were intuitive in nature, which counters a calculative, theoretical stance. To support his argument, Ratcliffe appeals to Hubert Dreyfus' account of expertise, which argues that expert action need not always involve mental representations and calculative reasoning[23]. As Ratcliffe says, "Expert sportspeople and game players, when asked why they responded in a particular way, will often report that they 'just saw

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[23] Dreyfus' account of expertise becomes central to chapters 4, 5 and 6 of this thesis.

it' or 'did it', rather than offering a complicated narrative concerning their ability to attribute internal mental states" (2007a, p. 232). Ratcliffe then likens the strategic social interactions involved in football to other strategic social situations. If FP is not needed in the former, we have good reason to believe FP is not needed in other strategic social situations. As he says, " Even when one is not running around on a pitch or making split-second decisions, context-specific skills could well be driving the ability to interpret and interact with others" (Ratcliffe, 2007a, p. 233).

Ratcliffe concludes that since FP is not needed in everyday situations like manoeuvring around a busy train station or in strategic situations such as playing sports, then the scope of FP is significantly smaller than the proponents of FP make it out to be.

'Belief' & 'Desire'?

Third, Ratcliffe argues that the terms 'belief' and 'desire' used in FP are rather vague in the sense that these terms are used to describe a wide range of phenomena. For example, consider the following statement: "it is trivially easy to explain why John will carry his umbrella with him: it is because he believes it will rain and he wants to stay dry" (Frith & Happé, 1999, p. 2). Ratcliffe, however, insists that this is not so trivially easy to explain via FP by providing two differing reasons why John will carry his umbrella:

1. John opened the door and saw the unusually dark sky. He went back into the house and picked up his umbrella.

2. As always, John switched off his alarm clock and got out of bed at 7.30. He
    dressed, ate breakfast, picked up his briefcase and umbrella and set off to work at
    the usual time of 8.30. (Ratcliffe, 2007a, p. 235)

Carrying an umbrella because one desires to stay dry and carrying an umbrella out of habit are qualitatively different, but FP cannot distinguish between the two. "Stating that he 'believes that p and desires that q' does not serve to distinguish the two, even though the ability to draw such distinctions is crucial in understanding his behaviour" (Ratcliffe, 2008, p. 446).This point becomes clearer when explaining Ratcliffe's argument against treating the word 'belief' as unitary (2007a, p. 233).

The problem with treating the word 'belief' as unitary, according to Ratcliffe, is that 'belief' encompasses a number of psychological states that we are able to distinguish in everyday discourse. For example,

Astonishment: "I don't believe it!"

Disappointment: "I don't believe it!"

Incredulity: "I don't believe it!"

Anger: "I can't believe you did that"

Disgust: "I can't believe you did that!"

Forms of trust: "I believe you" or even "I believe in you."

Moral conviction: "I don't believe that's right."

Religious faith: "I believe."

Uncertainty: "I believe it is raining but I'm not sure." (Ratcliffe, 2007a, p. 238)

The point is that a phrase resembling "x believes y" is not enough to provide sufficient understanding of a particular situation. Again, like the other interactionists, Ratcliffe highlights

the importance of situational factors, which FP as neglected to take into account, the result being

a number of examples that are "ambiguous, mistaken or irrelevant" (2007a, p. 239). Although he

says mental states have a role, Ratcliffe asserts they "are knitted into a broader context and are

understood through that context" (2007a, p.238). Ratcliffe concludes that, "Indiscriminate

application of the term 'belief' is no substitute for a more refined contextualization" (2007a,

p.238).

Although Ratcliffe takes an extreme position against FP, he is not an eliminativist, as,

unlike Churchland, Ratcliffe does not say FP is false and therefore should be eliminated. Rather,

Ratcliffe argues FP is "an abstraction from social life that is misleading in various respects and

has no psychological reality. At best, it is a convenient way of talking in certain areas of

philosophy" (2007b, p. 23).

Empirical Evidence

As I discussed in Chapter 1, false-belief tests and evidence of mirror neurons are the most

popular forms of empirical evidence for mindreading. However, the interactionists re-evaluate

these studies to show how problematic they are in supporting FP.

False-belief Test

According to the proponents of FP, the attribution of propositional attitudes is central to

social understanding and they appeal to false-belief tests to show that children develop a theory

of mind around the age of four. However, Gallagher raises several issues with the test. First, he notes that there is disagreement as to whether the Maxi experiments act as support for TT or ST (as it appears to be compatible with both) (2001, p. 98). Gallagher also notes that it has been argued lacking a theory of mind is not the only reason why children fail false-belief tests, e.g., some find the test to be too complicated (2001, p. 98). Gallagher also notes that the false-belief test does not capture all that is involved in social understanding. For instance, in his words, "Prior to this [obtaining a theory of mind as evidenced in false-belief tests], however, the basis for human interaction and for understanding others has already been laid down by certain embodied practices —practices that are emotional, sensory-motor, perceptual and nonconceptual" (Gallagher, 2001, p. 85).

Gallagher's evidence for his claim is that proponents of FP neglect to focus on the fact that children who fail to pass the false-belief task are still able to interact with and understand the experimenter (2001, p. 99). For instance, although a child might not have passed the false-belief task, he understood and followed the experimenter's instructions to participate in experiment. Therefore, we have good reason to believe that there must be other abilities in place to understand others prior to developing the ability to attribute propositional attitudes, e.g., the abilities discussed in primary and secondary intersubjectivity.

Gallagher also lists several problematic aspects of the test itself. First he states that the test is designed to test for one specific way people understand others, which Gallagher says is the test's strength and weakness (2001, p. 99) The strength is that it does test for a new ability children develop around the age of four, whereas the weakness is that this ability is only one skill we have as social creatures. For, as Gallagher says, explaining and predicting others' behaviour

in terms of their mental states are "very specialized cognitive abilities, and do not capture the fuller picture of how we understand other people" (2001, p. 99).

Second, as I stated earlier, the interactionists emphasise the role of interaction between others. However, this test asks children to predict what another will do with whom they are *not* interacting" (2001, p. 99). Gallagher then says it is problematic to draw conclusions from the results of this experiment to account for our second-person interactions between people. In fact, as Gallagher says, "It is not at all clear that how we interact with another person directly in a second-person relationship can be captured by activities in the category of third-person observation" (2001, p. 99).

Ratcliffe also criticises how the experiments are designed, as he argues they are "self-fulfilling prophecies" (2006, p.467). The problem, according to Ratcliffe, is that some experimenters feed the theoretical interpretations (which are often philosophically debatable positions considering that much of the support for FP comes in the form of assumptions) into the design of the experiment, which is then validated through the conduction of the experiment. In Ratcliffe's words,

> However, the very name 'false belief task' suggests that an FP interpretation is already written into this experimental paradigm. It is simply assumed that the abilities measured by such experiments should be interpreted in terms of an ability to assign true or false beliefs. This interpretive bias is evident in the design of experiments. (Ratcliffe, 2006, p.47)

In short, these tests should not be considered as empirical evidence for FP, as they are biased from the start.

Mirror Neurons

Before I present the interactionists' response to using mirror neurons as evidence for mindreading, I will contextualize my discussion by addressing an objection often raised against the use of phenomenology in such areas. Some proponents of FP argue that phenomenological arguments against FP may be effective at the personal level, but are irrelevant to the subpersonal processes responsible for social cognition[24]. Zahavi sums up this argument as follows:

> It could be argued that there is something quite misleading about depicting the phenomenological proposal as such an alternative, and that the very suggestion reveals a fundamental confusion. After all, couldn't simulationists and theory-theorists simply accept the phenomenological description *tout court*, but just insist that this description remains a personal-level description, one that doesn't consider the underlying sub-personal mechanisms, which are the ones that simulationists and theory-theorists are interested in? (Zahavi, 2010, p. 303)

The interactionists address this in several ways. First, they do not deny that social understanding involves subpersonal processes and that phenomenology alone will not give a complete account of social understanding. However, they do question why we should understand these sub-personal processes as support for FP. As Zahavi asks, to "what extent [do] sub-personal mechanisms involve routines that merit the name of simulation and theorizing" (Zahavi, 2010, p. 303)? It is not that interactionists deny the existence of mirror neurons; rather, they disagree with whether this evidence is evidence for simulation. This brings me to Gallagher's argument against implicit ST.

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[24] I address such an objection by Shannon Spaulding (2010) in the next chapter.

To start, as discussed in Chapter 1, proponents of ST (specifically Goldman), claim that mirror neurons are evidence for ST. Although, Gallagher does not question that mirror neurons aid in social understanding, he doubts whether they are evidence for ST. Gallagher's main concern is that proponents of implicit ST (or low-level mindreading, according to Goldman), as well as the critics, do not use 'simulation' in any genuine sense of the term since the processes involved at the subpersonal level do not match the various definitions of the term 'simulation' (2007b, p. 359). As Gallagher says in a footnote, the problem is that, "the definition of simulation relevant to ST is first worked out in accounts of explicit ST, and then is *uncritically* used in accounts of implicit ST" ([my emphasis] 2007b, p. 359).

In further detail, Gallagher understands that proponents of ST regard simulation as the "the instrumental use of a first-person model to form third-person "as if" or "pretend" mental states (2007, p. 360). If this is the case, then Gallagher shows why mirror neurons do not simulate. First, Gallagher targets the claim proponents of ST often regard simulation as a process undertaken by the agent seeking to understand the other person. Gordon sees this as a transformation, where agent A performs an egocentric shift. Goldman sees this as a projection, where agent A projects himself into the other's position. However, as Gallagher points out, mirror neurons do not activate on command through a process of transformation or projection. As he states, "We, at the personal level, do not *do* anything with the activated brain areas – in fact, we have no instrumental access to neuronal activation, and we can not use it as a model" (2007b, p. 360). Rather, Gallagher points out that the direction of activation is the other way around in that mirror neurons are activated by the other person's action. In his words, "The other person *has an effect on us*. The other *elicits* this activation. This is not simulation, but a

perceptual elicitation. It is not us (or our brain) *doing* it, but the other who does this to us"
(2007b, pp. 360-361).

To make the argument that mirror neurons engage in a simulation routine, according to
Gallagher, is to add a superfluous step to the process whereby we "first see an action that we
need to understand; we then simulate it in our own mind or motor system; we then attribute
agency for the action, and infer something about the other's experience" (2007b, p. 359).
However, neurons do not 'simulate' this way. To quote Gallagher, "Either the neurons fire or
they do not. They do not pretend to fire" (2007b, p. 361)[25]. Therefore, since subpersonal
processes do not deal in "pretend mental states", it is problematic to say such subpersonal
processes engage in simulation routines. I have called the strategy of showing that some steps in
FP's explanations are superfluous 'Gallagher's Razor' (Capstick, 2013, p. 36).

Conclusion

Following Gallagher's list of presuppositions that the interactionists target, this chapter
presented the various arguments made by the interactionists by focusing on several central
themes present in their respective positions. For instance, I presented the arguments that some
mental states are observable, that interaction is central to social understanding (not the attribution
of propositional attitudes), and that even if we want to engage in the same explanandum as FP,
we are not restricted to either TT or ST. Furthermore, I presented the interactionists' discussion

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[25] Gallagher also responds to the potential objection that no one claims that mirror neurons engage in pretense. He
argues that if simulation theorists argue that simulation is implicit and that mirror neurons are regarded as a
simulation process, then, according to the definition of simulation, "those subpersonal processes themselves must
involve pretense" (2007b, p. 361).

of the supposed evidence for FP. As I stated in the introduction, this thesis sets out to supplement

the interactionists' arguments against FP. In the next chapter, I defend the interactionists'

argument against some recent critiques.

Chapter 3: Defending the Alternatives

The previous chapter outlined the interactionists' arguments against FP and ended by declaring that this thesis's aim is to supplement their arguments against FP. My supplementation begins with a defence of the positions central to my argument against the proponents of FP. This chapter defends the interactionists from some recent critiques and the next chapter defends Hubert Dreyfus' account of expertise.

The first half of this chapter addresses arguments made by Mitchel Herschbach (2008a & 2008b). Herschbach introduces Michael Wheeler's distinction between 'on-line' and 'off-line' intelligence to the debate on social understanding in order to characterize two arguments made by the interactionists[26]. The first is that FP is exclusively off-line and mentalistic and the second is that social understanding is on-line and non-mentalistic. To counter the interactionists, Herschbach argues for the existence of 'on-line false belief understanding', which he argues demonstrates that FP is not restricted to off-line forms. If this is the case, then FP is more widespread than the interactionists acknowledge, which undermines the interactionists' arguments. Framing the first section of this chapter around Herschbach's arguments allows me to further address several empirical studies used to support FP. As I will demonstrate, one study presupposes FP from the start and another appears to support the interactionists' position. Therefore, my focus is not restricted to Herschbach's position *per se*.

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[26] I should clarify that although Herschbach specifically targets the 'phenomenological critics of FP' (e.g., Shaun Gallagher, Matthew Ratcliffe, and Dan Zahavi), I will continue to use the term 'interactionists' throughout this section in order to be consistent with the thesis as a whole.

The second half of this chapter is framed around two arguments Shannon Spaulding (2010) puts forward against the interactionists (specifically Gallagher). The first argues that since our first-person reports are often shown to be susceptible to error, phenomenology is not a trustworthy method in the debate about FP. The second argues that since phenomenology describes our first-person experience of phenomena and FP describes the subpersonal mechanisms that provide the conditions for social understanding, phenomenological objections to FP are irrelevant. I begin my response by establishing similarities between Spaulding's arguments and Dennett's arguments against traditional phenomenology. I then appeal to several arguments made against Dennett and apply them to Spaulding's arguments.

I chose to frame my defence around Herschbach and Spaulding's arguments, as my response to their arguments sets the groundwork for the new concept I develop at the end of this thesis. For instance, Herschbach argues that we use FP (understood as a mentalistic way of understanding others) more frequently than the interactionists acknowledge and Spaulding argues that phenomenology is irrelevant in the debate about social understanding. However, I argue for an account of social interaction that draws on Dreyfus' account of expertise, i.e., a phenomenological non-representational (a non-mentalistic) account of intentional action.

Herschbach's Position

Herschbach (2008b) argues for the claim that FP plays a larger role in social understanding than the interactionists acknowledge. In his words, "While accepting their point that non-mentalistic forms of understanding should be included in accounts of human social understanding, I argue that FP is much more pervasive in our everyday social understanding than

the phenomenological critics claim" (Herschbach, 2008b p. 35). Herschbach supports this

conclusion by showing how the interactionists have gone too far by restricting FP to cases of

'disengagement'. In other words, the interactionists have unconvincingly argued that *all* forms of

FP are disengaged in nature, and that *all* cases of interaction are non-mentalistic. In order to

clarify his position, Herschbach introduces Michael Wheeler's distinction between 'on-line' and

'off-line' intelligence to the debate on social understanding.

Wheeler makes the distinction between on-line intelligence and off-line intelligence in

order to characterise two ways in which we engage with the world. On-line intelligence, which

Wheeler argues is the primary mode of intelligence, is characterised by engagement with the

world. In Wheeler's words,

> A creature displays on-line intelligence just when it produces a suite of fluid and
>
> flexible real-time adaptive responses to incoming sensory stimuli….Other
>
> paradigmatic demonstrations of on-line intelligence…include navigating a path
>
> through a dynamic world without bumping into things, escaping from a predator,
>
> and playing squash. (2005, p. 12)

Off-line intelligence, on the other hand, is characterised by not actively engaging with the

world. Wheeler's example is wondering what the weather is like in Paris or thinking about the

pros and cons of moving to a new city (2005, p. 12). There are at least two ways one could

interpret 'off-line intelligence' as it applies to social understanding. First, we could understand

off-line as involving 'reflection'. Like Wheeler's Paris example, I could reflect on another's

behaviour, e.g., "I wonder why she did that". Alternatively, we could understand off-line as

involving 'disengagement/observation'. This is an important distinction as I could observe a

woman entering a pub across the street, but this observation alone does not entail that I also

reflect on her behaviour[27]. Since I believe it is unclear whether Herschbach favours one interpretation over another, I consider both interpretations in my assessment.

Using the distinction between on-line and off-line, Herschbach makes two claims about the interactionists. First, he argues that the interactionists restrict FP to off-line contexts. Secondly, he argues that they claim our social encounters are on-line and non-mentalistic. Herschbach's counter-argument centres on his concept of 'on-line false belief understanding'. Since Herschbach claims false belief understanding is the paradigmatic example of mental state understanding (2008b, p. 37), he argues that on-line false belief understanding would undermine the interactionists' position. In other words, if *all* on-line social understanding is supposed to be non-mentalistic, then a case of *on-line* false belief understanding poses a serious problem for the interactionists. Herschbach concludes that on-line false belief understanding demonstrates that FP is more widespread than the interactionists acknowledge.

In short, Herschbach's argument can be summed up as follows:

a) According to the interactionists, FP is used infrequently.

b) This is because the interactionists restrict FP to off-line contexts and argue that social understanding is on-line and non-mentalistic.

c) However, FP can come in on-line forms, e.g., on-line false belief understanding.

d) Therefore, FP is more widespread than the interactionists claim.[28]

Problems with 'Off-line'

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[27] I would like to thank Mitchell Herschbach for making me aware of this distinction.
[28] I would like to thank Matthew Ratcliffe for this formulation.

I do not dispute a) as it is true. Although there are problems with both b) and c) and how they support d), this chapter will target premise c) [29]. To support his concept of on-line false belief understanding, Herschbach refers to several studies (Onishi and Baillargeon 2005; Southgate et al 2007; Carpenter et al 2002; Keysar et al 2000; Keysar et al 2003). I focus on Onishi and Baillargeon (2005) and Keysar et al (2003) as the central studies used to support this concept. For instance, Herschbach appeals to Onishi and Baillargeon's (2005) claim that infants are able understand false beliefs as early as 15 months. If that is the case, then we have been using on-line false belief understanding since we were infants. However, I argue it is unclear that on-line false belief understanding is to be understood in terms of FP rather than a position consistent with the interactionists. Furthermore, even if on-line false belief understanding is to be understood in terms of FP, it is not clear that FP is more widespread than interactionists acknowledge.

Onishi and Baillargeon

Kristine Onishi and Renee Baillargeon's (2005) study supposedly shows that infants are able to appreciate others' false beliefs as early as 15 months. The experiment discussed is not that different from standard false belief tasks (e.g., the Sally-Anne tests) except that the participants in the Onishi and Baillargeon's study are not asked to observe behaviour and then make predictions about what course of action others will perform. The study begins with the infants being familiarised with someone hiding a toy in one of two locations (either a green or

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[29] I address premise b) in chapter 7 as well as Capstick (2013).

yellow box), and then coming back to get the toy where they placed it. The infants are then shown that the toy was moved without that person seeing that the toy has been moved. It was found that the infants looked longer when the person searched in the wrong location: "Whether the actor believed the toy to be hidden in the green or the yellow box and whether this belief was in fact true or false, the infants expected the actor to search on the basis of her belief about the toy's location" (Onishi and Baillargeon, 2005, p. 257). Onishi and Baillargeon interpreted this as supporting evidence that infants as young as 15 months have some appreciation of false beliefs. In other words, this appears to support FP. In their words,

> … the infants expected the actor to search on the basis of her belief about the toy's location. These results suggest that 15-month-old infants already possess (at least in a rudimentary and implicit form) a representational theory of mind. They realize that others act on the basis of their beliefs and that these beliefs are representations that may or may not mirror reality. (Onishi and Baillargeon, 2005, p. 257)

Onishi and Baillargeon provide two reasons to justify their interpretation of the results. First, like many of the other researchers in this area (as they acknowledge themselves), they *assume* that children are born with an "abstract computation system that guides their interpretation of others' behaviour" (2005, p. 257). The second is that

> …it is more parsimonious to assume that infants attribute to others beliefs that can be shaped and updated by multiple sources of information than to assume that infants form an extensive series of superficial expectations linking different perceptions to different actions. (Onishi and Baillargeon, 2005, p. 257)[30]

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[30] It could be argued that it is more parsimonious because FP oversimplifies the nature of social understanding. If social understanding is complex in nature, then finding a simpler way of accounting for the way we understand

Herschbach says that this study supports his notion of on-line false belief understanding. In his words,

> …the understanding of false belief required of children seems well characterized as sensorimotor (involving bodily responses to observable stimuli), implicit (not requiring conscious thought) and spontaneous (not requiring explicit instruction from experimenters). It is thus clearly much closer to the 'on-line' end of the spectrum than the 'off-line' end, where we find standard false belief tasks. (2008b, p. 44)

I, on the other hand, respectfully disagree. The problem I have with this study as a support for Herschbach's concept is that Onishi and Baillargeon, admittedly, presuppose FP in discussing the results of the experiment rather than arguing for FP. In order to explicate this problem further, I want to emphasise Gallagher's distinction between developmental and pragmatic claims in social understanding.

Gallagher argues that the debate about social understanding is divided between two claims, developmental claims and pragmatic claims (2001, p. 84). Developmental claims are concerned with *when* a child achieves a representational theory of mind and primarily "involve the timing and order of development, the importance and balance of innate mechanisms versus experience, and so forth" (Gallagher, 2005, p. 207). Pragmatic claims, on the other hand, which are either strong or weak, concern *whether* our primary mode of understanding others involves FP. For the most part, the interactionists focus on pragmatic claims as they question the scope of FP. In doing so, they often argue against the strong pragmatic claim that the attribution of beliefs and desires is *central* to social understanding. One shared argument among the interactionists is

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others is not a convincing reason for preferring one interpretation over another. Furthermore, for evidence that the FP approach is not the most parsimonious, see Low and Wang (2011).

that many of those who advocate the strong pragmatic claim do so by *assuming* FP is the primary way in which we understand others. For instance, as Ratcliffe states,

> However, that we *do* attribute beliefs and desires in a way that is central to social life is something that most versions of both theories assume from the outset as an explanandum. Scientific work is generally concerned with differentiating the two accounts and investigating the developmental trajectory of FP, rather than with the question of whether FP itself is an adequate description of the achievements central to human social life. (2007a, p. 229)

Although he rejects the strong pragmatic claim, Gallagher accepts the weak pragmatic claim that theory of mind is a very narrow and specialised skill that we *sometimes* use (2001, p. 85). Ratcliffe, on the other hand, rejects both the strong and weak pragmatic claims (2006, p. 37). Returning to Onishi and Baillargeon, it is clear they are concerned with developmental claims, as they target previous studies that state we develop a theory of mind at the ages of 3 or 4 and argue that it is sooner. Therefore, their concern is *when* we develop our FP ability; not *whether* FP is in fact the primary way in which we understand each other. For instance, Ratcliffe argues that some of the major presuppositions shared by proponents of FP are philosophically debatable positions, which are then carried over into experiments that are used to support FP. One group of experiments are false belief tasks, which Ratcliffe claims are self-fulfilling prophecies (2006, p. 467). The problem, according to Ratcliffe, is that some experimenters feed the theoretical interpretations into the design of the experiment, which are then seemingly validated through the conduction of the experiment.

The very name 'false belief task' suggests that an FP interpretation is already written into this experimental paradigm. It is simply assumed that the abilities measured by such experiments

should be interpreted in terms of an ability to assign true or false beliefs. This interpretive bias is evident in the design of experiments (Ratcliffe, 2006, p.47). Therefore, *assuming* something is the case is problematic when trying to show *that* it is the case. Perhaps the following example will further illustrate the problem of using developmental claims to either support or refute pragmatic claims.

Imagine two children, Billy and Tom, arguing over which of their respective houses Santa Claus visited first. Billy and Tom's debate centres on developmental claims in that they are only concerned with *when* Santa visited their house. Hearing the two arguing back and forth, a third party, Bob, comes along and questions whether such a being exists. The problem is that Billy and Tom's developmental claims are not sufficient to address Bob's claim because both Billy and Tom *presuppose* Santa Claus' existence in their developmental claims. In other words, to argue that Santa Claus visited Billy's house before Tom's presupposes that Santa Claus exists in the first place. The point is that developmental claims do not always support pragmatic claims, especially when developmental cases presuppose certain pragmatic claims from the start. Therefore, Onishi and Baillargeon's claims are inappropriate as a form of support for Herschbach's argument against the interactionists. In order to be a counter example it has to provide reasons why it is best understood as FP rather than a position consistent with the interactionists' position. However, the Onishi and Baillargeon's study does not do this.

There is also the problem that the interactionists can account for Onishi and Baillargeon's results. Recently, Gallagher addressed Onishi and Baillargeon's study and offered an alternative interpretation of the data. Consider the following paragraph from Gallagher's assessment of their results.

But one could equally say that the infant's expectations are shaped by the infant's taking into account that the agent's actions are informed by her familiarity with the situation, and specifically by what that agent has been in a position to see or not see. The agent was not in a position to see the toy's switch from location A to location B. If the agent's actions are guided by what she has seen, then one would expect her to look in A and is surprised that she looks in B. (Gallagher, 2012 p. 197)

According to Gallagher, there are six steps involved in interpreting Onishi and Baillargeon's study in terms of FP.

1) Agent puts toy in A, or sees toy put in A.

2) Infant sees (1)—that is, the infant sees that the agent is in a position to see where the toy is.

3) The toy is shifted from A to B, but the agent is not in a position to see this.

4) Infant sees (3)—that is, the infant sees that the agent is not in a position to see the shift.

5) TT hypothesis: Infant infers that agent has false belief about location of toy.

6) When agent looks in B, there is a violation of expectation (VOE). (Gallagher, 2012, p. 198)

The crux of Gallagher's response is that step five is unnecessary. According to Gallagher, "An alternative hypothesis is simply that the infant expects the agent's action to be guided by what the agent has done or seen (and not by what the agent has not seen)" (2012, p. 198). Gallagher continues to say that, "The infant has a pragmatic (enactive) grasp of how perception

and action are connected and does not have to infer anything about mental states in order to understand the agent" (2012, p. 198).

This strategy of showing that some steps in FP's explanations are superfluous is at the heart of some of Gallagher's arguments against FP. I like to call this argument 'Gallagher's Razor'. For example, in his argument against implicit ST, Gallagher argues that it is superfluous to say that we understand others in terms of "perception *plus* simulation" (2007b, p. 359). Direct perception can account for the majority of social understanding without the need of the extra step of simulation. Therefore, 'Gallagher's Razor' shaves off the unnecessary step of simulation.

Next, I address Herschbach's citation of Keysar et al (2003). Keysar et al (2003) is a particularly interesting source as it begins with many of the shared assumptions about FP, but it makes a pragmatic claim that we *rarely* use it. The point I want to make is that Keysar et al (2003) would endorse the claim that we *sometimes* use FP, not that it is more *widespread*.

Keysar et al

Keysar et al (2003) discuss two experiments. The first experiment involves a person who played the role of a "director" in a communication game. The director instructed a participant to move certain objects around a grid. However, the participants hid an object in a bag. As Keysar et al (2003) state,

> Occasionally, the descriptions that the director used to refer to a mutually-visible object more closely matched the identity of the object hidden in the bag. Although they clearly knew that the director did not know the identity of the hidden object,

they often took it as the referent of the director's description, sometimes even

attempting to comply with the instruction by actually moving the bag itself.

(2003, p. 25)

The second experiment altered the first experiment such that the focus was on false

beliefs. In this experiment, the experimenter would show the participant and the director a

picture of a ball. This created a false belief in the director as the participant hid the roll of tape in

the bag. It was necessary for the participants to focus on the director's false belief about the

bag's contents and the participants' understanding was measured by what object they first looked

at and reached for.

In describing the results, Keysar et al (2003) state that the two tasks "were identical"

(2003, p. 36). In their words,

Participants attempted to move the bag reliably more often in the experimental

condition in baseline…They did so to the same degree in the ignorance and the

false belief conditions…So even when participants believe that the director

believes that the bag contains a small ball, they still attempt to move it when they

hear "move the tape…The results of Experiment 2 clearly show that the effect

from Experiment 1 generalizes from the case of ignorance to the case of false

belief". (2003, p. 37)

Herschbach concludes that studies like this provide evidence for accounts of social

interaction that "require online responses to people's false beliefs" (2008b, p. 46). After

reviewing the general discussion of their results, however, I do not believe Keysar et al (2003)

would agree with Herschbach's conclusion that FP is more widespread than the interactionists

acknowledge.

Keysar et al (2003) argue that although children may obtain FP as a skill, both children and adults rarely use it. In their words, "Surprisingly, we find that adults fail to reliably deploy this ability precisely in the circumstances in which it would be most useful when they interpret the actions of others" (2003, p. 28). Their reasoning for this is that although we can use this skill, "…this ability is not yet incorporated enough into the routine operation of the interpretation system to allow spontaneous, non-reflective use" (2003, p. 28).

In order to explain their findings, Keysar et al (2003, p. 26) ask us to suppose that we have two coffee making machines: a regular drip coffee machine and an espresso machine. Since we drink drip coffee more than espresso, the espresso machine is kept in its box only to be taken out when we want espresso. Keysar et al (2003) argue that our theory of mind skill is like the espresso machine. It is only taken out when we need or want it. It is not our regular, more pervasive mode of understanding others. In their words,

> Although it is true that children acquire this theory of mind machine by the age of 5 or 6 years at the latest, we argue that it is still "in the box" when they become adults. Though it could be used, it is not incorporated into the routine operation of the adult's system. Consequently, adults' use of crucial elements of theory of mind is not reliable. (Keysar et al., 2003, p. 26)

Although they conclude that FP is not used *reliably*, Keysar et al's (2003) claim equally supports the position that FP is used *infrequently*. Recall their coffee/espresso maker example. Keysar et al (2003) say that the espresso machine is like FP in that it is used unreliably because it has not been incorporated into the daily schedule. Since the espresso machine remains in the box for the majority of the time, it is safe to say that we use the espresso machine *infrequently*.

Therefore, Keysar et al's (2003) study does not support Herschbach's conclusion that FP is more widespread than the interactionists acknowledge.

One might object that I cannot appeal to a study that says FP is unreliable to support the claim that we use FP infrequently, as these terms have different meanings. For example, it might be the case that we infrequently use a reliable technique to perform a specific skill. However, if this objection applies to my argument, it also applies to Herschbach's, as his central argument is that FP is used more frequently than the interactionists acknowledge. If I cannot appeal to Keysar et al's (2003) study as support for the infrequency of FP, then Herschbach cannot appeal for the frequency of FP. Therefore, my argument that Herschbach has not convincingly established that FP is more widespread than the interactionists acknowledge still stands.

Although I have been highly critical of Herschbach's discussion of on-line and off-line understanding, I think it is an interesting way of describing an aspect of the social understanding debate. I am just unconvinced that the on-line/off-line distinction is the best way of demarcating the interactionists from the proponents of FP. Before presenting Spaulding's arguments against the interactionists, I briefly discuss a way of distinguishing FP from its alternatives.

I will now present and address Spaulding's arguments against the interactionists.

Spaulding's Position

Spaulding begins by targeting Gallagher's phenomenological argument, which she describes as the claim that there is good phenomenological evidence that we do not resort to 'mindreading' (understood as the attribution of propositional attitudes from a third-person

stance) in the majority of our interactions with others (2010, p. 129). In response, her first

argument is that even if mindreading does not seem to be pervasive, "it is not implausible that

phenomenology is mistaken" (Spaulding, 2010, p. 131). She points to empirical studies on the

phenomenon of sensory illusions and introspective confabulation in order to raise doubt whether

first-person reports can count as reliable evidence in scientific studies (2010, p. 131). Therefore,

given phenomenology is prone to error, it cannot confidently undermine FP.

Doubting phenomenology's results leads Spaulding to her second argument where she

argues that phenomenology is irrelevant in the debate about social cognition. As she states, "The

fallibility of phenomenology is one reason to doubt Gallagher's phenomenological argument.

The total irrelevance of phenomenology is another" (Spaulding, 2010, p. 131). Since she believes

that the majority of social understanding happens at the subpersonal level and phenomenology

can only shed light on the first-person description of experience, phenomenology, then, has little

to contribute to social understanding. In her words,

> The debate in mindreading between the Theory Theory and the Simulation
>
> Theory is a debate about the architecture and sub-personal processes responsible
>
> for social cognition. Neither account is committed to any view on what
>
> phenomenology tells us is going on in our ordinary interactions. With
>
> mindreading, there is a process (theorizing or simulating), and there is a product
>
> (an explanation or a prediction). In general, neither the process nor the product
>
> need be consciously accessible, let alone phenomenologically transparent.
>
> (Spaulding, 2010, p. 131)

Spaulding concludes by reiterating that even if it appears to be the case that FP is not

pervasive as our primary way of understanding others, this, alone, is not enough to undermine

FP. The problem, for Spaulding, is that describing what *appears* to be the case does not necessarily match up to what is *actually* the case. In her words,

> What phenomenology can tell us is that our ordinary interactions *seem* to be based on an immediate, pragmatic, evaluative understanding. However, since the question in the mindreading literature is not about what our ordinary interactions *seem* to be but about the architecture and sub-personal processes *actually* responsible for our ordinary interactions, Gallagher's argument does not refute the broad scope of mindreading claim. (2010, p. 132)

At this point, I would like to sum up her two arguments as follows.

First Argument:

a) Phenomenology claims that FP is not pervasive because FP does not appear to be the case.

b) However, our phenomenology is fallible.

c) Therefore, phenomenology cannot conclusively undermine FP.

Second Argument:

d) Phenomenology seeks to characterise social experience.

e) Proponents of FP, however, are concerned with the cognitive processes that need not feature in social experience (e.g., subpersonal processes).

f) Therefore, phenomenological arguments are irrelevant[31].

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[31] I would like to thank Matthew Ratcliffe for helping me formulate Spaulding's second argument.

I should begin my response by saying that Spaulding is not the first to raise arguments like this against phenomenology. Granted she focuses on the interactionists in the debate about FP, but Daniel Dennett (1991, 2003) has raised similar arguments against phenomenology in the debate about consciousness. My strategy is to undermine Spaulding's arguments by presenting several responses to Dennett's arguments against phenomenology. For instance, I will show that both Spaulding and Dennett target what Alva Noë calls, 'pure phenomenology', a position that most phenomenologists do not endorse. Rather, they adopt what Noë calls an 'integrative phenomenology'.

Before I begin my brief exposition of Dennett's arguments against traditional phenomenology, I should stress that I am not concerned with Dennett's position in its entirety; I only focus on the elements that are relevant to Spaulding's critique of the interactionists.

Dennett and Phenomenology

In arguing for heterophenomenology, Dennett's third-person, objective methodology for a scientific understanding of consciousness, he quickly distinguishes it from traditional forms of phenomenology (i.e., the methodologies espoused by Edmund Husserl, Martin Heidegger, Jean-Paul Sartre, Maurice Merleau-Ponty and various others). Dennett does so as he believes traditional phenomenology is a form of introspection. In his words, phenomenology is "based on a special technique of introspection, in which the outer world and all its implications and presuppositions were supposed to be "bracketed" in a particular act of mind known as the *epoché*" (Dennett, 1991a, p. 44). He further states that the epoché was supposed to allow

phenomenologists to uncover the nature of the noemata, which he calls the "pure objects of conscious experience," but fell short, as phenomenologists' findings varied from phenomenologist to phenomenologist (Dennett, 1991a, p. 44).

Since Dennett sees such variation in each phenomenologist's work, he often calls traditional phenomenology "lone-wolf phenomenology", "autophenomenology", and so on, as he takes it to be an individual endeavour. It is individualistic in the sense that one focuses on how the world seems to an individual. For example, I am currently writing this section of this chapter on a black keyboard. According to Dennett, if I were to describe the keyboard as a traditional phenomenologist, I would be solely concerned with how this keyboard seemed to me; not how it is. This, according to Dennett, is problematic if we want to treat phenomenology as a science, as science is concerned with the way things are.

The concern here is that if I, the lone-wolf phenomenologist, am solely concerned with the way the world seems to me, I have no way to test these seemings in the way that is required for the scientific method. Since I cannot test my seemings, I leave myself open for error. As he states, "The problem with autophenomenology is not that it is (always, or typically) *victim* to illusion and distortion but that it is (always) *vulnerable* to illusion and distortion" (Dennett, 2007, 264). In order to avoid this problem, Dennett stresses that when asking a subject about his or her experience, the heterophenomenologist simply reports what the subject believes to be the case; not what *actually* is the case. For example, when I, the potential subject in a heterophenomenological experiment, say, "This keyboard is black", the experimenter records it as, "The subject believes that the keyboard is black".

Since Dennett believes that introspection impedes a scientific study of consciousness, he advances the following hypothetical scenario in order to convince the reader further of the perils

of first-person methodologies in scientific endeavours. He asks whether we should take introspective reports as "stand-alone evidence" in peer-reviewed journals concerning the scientific study of consciousness. For the most part, the majority of people would agree with Dennett in saying, "I don't think so" (Dennett, 2007, p. 263). Therefore, Dennett concludes that we should abandon phenomenology when pursuing a scientific understanding of consciousness.

I take it that both Dennett and Spaulding agree on the nature of phenomenology. Both believe that the phenomenologist focuses solely on how the world appears to the individual phenomenologist and both agree that phenomenology is a matter of 'seemings'; not of what is the case. Furthermore, the distinction between what is the case and believing something to be the case shows that belief is fallible when determining what is the case. This is perfectly consistent with Spaulding's two arguments against the phenomenological argument against FP. However, the version of phenomenology that both Spaulding and Dennett target is not what phenomenologists espouse.

Pure Phenomenology versus Integrative Phenomenology

As I stated earlier, both Spaulding and Dennett target what Alva Noë calls 'pure phenomenology'. According to this position, phenomenology focuses solely on how things seem to us and is not concerned with how the world actually is. In doing so, pure phenomenology regards its subject matter as 'autonomous' (Noë, 2007, p. 232). By this, Noë means that pure phenomenology regards phenomenological facts as separate and distinct from metaphysical or empirical facts about the way the world is, which leads to the following 'methodological upshot':

"it is possible to undertake a phenomenological investigation without making any empirical or metaphysical assumptions" (2007, p. 231).

Pure phenomenology, however, has a serious problem when dealing with disputes. On the one hand, pure phenomenology is not equipped to resolve disputes. For example, I say the suit in the store window looks black, whereas my friend says it looks dark blue. If we are both pure phenomenologists and we want to resolve our dispute, we are left with the problem of how to do so. If we remain solely at the level of how things seem to us and we are not concerned with metaphysical or empirical facts about the world, we do not have a way to resolve our dispute. Asking a third party would not help, as a pure phenomenologist is apparently concerned with how the world appears to her. How something may appear to another person does not address this concern. Furthermore, since appeals to other people may be futile, one can question whether pure phenomenology can address disputes at all. As Noë says, "Such a dispute, if it even rises to the level of genuine dispute, does not – indeed, cannot – engage with matters beyond its basic terms; it floats free of questions about the natural world" (2006, p. 232). According to Noë, it is precisely treating its subject matter as autonomous that leads pure phenomenology into this problem. In his words, "The trouble, rather, is that pure phenomenology conceives of its subject matter as autonomous. It is this epistemic isolation of phenomenology, more than anything else that threatens to undermine its claim to be a serious kind of intellectual pursuit. At best, it seems it is the fantasy of such a pursuit" (Noë, 2007, p. 231).

After presenting Noë's description of pure phenomenology in further detail, I am confident that Spaulding targets pure phenomenology. Therefore, we can revise her arguments slightly to make her target more explicit as follows:

First Argument:

a) [Pure] phenomenology claims that FP is not pervasive because FP does not appear to be the case.

b) However, our [pure] phenomenology is fallible.

c) Therefore, [pure] phenomenology cannot conclusively undermine FP.

Second Argument:

d) [Pure] Phenomenology seeks to characterise social experience.

e) Proponents of FP, however, are concerned with the cognitive processes that need not feature in social experience (e.g., sub-personal processes).

f) Therefore, [pure] phenomenological arguments are irrelevant

With this new formulation in place, I now undermine both by showing that the interactionists' respective positions are not cases of pure phenomenology. Perhaps the best way to demonstrate this claim is to start, as Noë does, with the question of whether anyone believes, or has believed in, pure phenomenology. Although he is sceptical by responding "maybe not", he does consider whether Husserl was a pure phenomenologist by looking at two interpretations of the phenomenological reduction (Noë, 2007, p. 232).

One interpretation claims that the phenomenological reduction's purpose was to "neutralize" empirical and metaphysical commitments (Noë, 2007, p. 232). Doing so involves bracketing all claims about the world and instead focusing the investigation on how things seem to be, making Husserl a pure phenomenologist. However, Noë considers another interpretation, which he says is very likely Husserl's actual conception. Here the epoché was not meant to shut

out the world. Rather, it was intended to enable one to view the world in a new way, which Noë

describes as, "an interest in the world as it presents itself for us in experience" (2007, p. 238).

Noë's point is backed up by Zahavi's interpretation of Husserl's work. As Zahavi explains, the

epoché was not meant to "deny, doubt, neglect, abandon, or exclude reality" (2003, p. 45); rather

it was meant suspend a dogmatic attitude that there exists a "mind-, experience-, and theory-

independent reality" (2003, p. 45), which is often referred to as the 'natural attitude'. Once this

'natural attitude' is suspended, we can continue in our pursuit of understanding the phenomenon

in question. Zahavi is also very quick to respond to a popular misunderstanding of Husserl's

phenomenology. As Zahavi explains, phenomenology is not simply a matter of how things seem,

i.e., "mere appearances" (2003, p. 55). As he explains,

> For how things appear is an integral part of what they really are. If we wish to
>
> grasp the true nature of the object, we had better pay close attention to how it
>
> manifests and reveals itself, be it in sensuous perception or in scientific analyses.
>
> The reality of the object is not hidden behind the phenomenon, but unfolds itself
>
> in the phenomenon. (Zahavi, 2003, p. 56)

This point is echoed by Taylor Carman, who says "Phenomenology is, in a loose sense,

the study of how things seem. Yet how things seem is bound in deep and complex ways with

how they are" (2007, p. 99). Therefore, Husserl is concerned with the way the world seems and

how it is, which means Husserl was not a pure phenomenologist. Although I do not intend on

addressing whether Husserl was a pure phenomenologist, I do believe that at least the

interactionists are not. Rather, I think the interactionists advocate what Noë calls a "weaker,

methodological variant of the doctrine of pure phenomenology" (2007, p. 233). Unlike pure

phenomenology, this version does not regard phenomenology's subject matter as autonomous

from the way the world is. Rather, Noë says this method of phenomenology treats its subject matter as "integrated" with the world (2007, p. 238).

Noë also cautions that integrative phenomenologists must not allow taken for granted theories to affect our descriptions of the phenomenon in question. In Noë's words, according to the integrative method, phenomenology's subject matter should act as a "descriptive preliminary to theorizing about the nature of" the phenomenon in question (Noë, 2007, p. 233). Carman makes a similar point when he says, "Good phenomenology, if there is to be such a thing, must be committed to getting it right about how things actually show up for us, prior to our reflecting and theorizing about them" (2007, p. 106). Noë likens this version of phenomenology to a detective who carefully observes and describes the scene of a crime before coming up with a theory to account for what happened (2007, p. 233). In this case, we do not bracket the world in order to focus on our experience; rather, we bracket any theoretical assumptions that may alter our perceptions of the world. For instance, returning to Noë's detective example, if I formed a theory that the victim's spouse was the murderer before viewing the crime scene, this theory may alter my perception of the crime scene such that I may, intentionally or unintentionally, actively seek evidence that supports my theory that the spouse is guilty. Rather, I should bracket my initial theory and continue to seek the evidence in order to avoid bias.

Noë's distinction between pure phenomenology and integrative phenomenology can be applied as a counter to Spaulding's arguments. First, his claim that phenomenology acts as a preliminary for theorising has important implications in debate about FP, as many of the interactionists are quite explicit in saying that they start with the phenomenon of social understanding before theorising about it. In fact, a central argument advocated by the interactionists against FP is that the proponents of FP confuse this order; they start with the

theory and impose it on social life. For instance, Ratcliffe (2006, 2007a, 2007b) has been explicit in advancing this argument against the claim that FP is a 'commonsense' psychology. However, in advocating that FP is a commonsense position, it at least indirectly implies that our phenomenology is relevant.

It is suggested in the literature on FP that FP is commonsensical. One sees many statements to the effect that we cannot help but think of social understanding in terms of attributing propositional attitudes, e.g., Botterill and Carruthers (1999, p. 10). If the proponents of FP take it to be commonsensical, then FP claims to be, at least indirectly, phenomenologically informed. However, it turns out that this is problematic. After surveying the historical development of FP, Ratcliffe notes an important absence: he claims that there has not been an attempt to start with observing social interaction before applying FP (either as TT or ST) (Ratcliffe, 2007b, p. 45). Rather, Ratcliffe argues that the proponents of FP started with FP and then imposed it on how we understand others in everyday situations. In his words:

> FP just seems to have been imposed upon everyday life, having emerged from a context of philosophical theorising and been declared as commonsense, although what is mean by 'commonsense' remains unclear. It is arguable that FP's emphasis on internal propositional attitude states owes much to its philosophical origins and little to what people actually think and do. (2007b, p. 45)

To put this in terms of the detective example discussed earlier, Ratcliffe argues that the proponents of FP did not start with the observation of the crime scene before coming up with a theory. Rather, they started with the theory and imposed it on the crime scene, which sets up a bias in understanding and describing the situation. One way to account for FP's bias in the debate about social understanding is that perhaps those who regard FP as commonsense are those

who have been taught FP as an undergraduate or have been "immersed in relevant philosophical debates for several years and long ago familiarised oneself with the ways in which the terms 'belief' and 'desire' operate in these debates" (Ratcliffe, 2007b, p. 46). Evidence for the second disjunct has been discussed in the first part of this chapter where I specifically referred to the various empirical studies Herschbach uses to support his account of on-line false belief understanding. The problem is that many of the studies simply presuppose FP from the start and interpret the data in terms of FP, e.g., Onishi and Baillargeon (2005). In order for an empirical study to act as support for FP, it would need to bracket any FP biases and consider alternative theories when designing experiments and interpreting the data, as FP is no longer the only game in town.

To further undermine Spaulding's argument, I will now discuss Noë's argument against the claim that phenomenology is irrelevant.

The Relevance of Phenomenology

Noë states that researchers often dismiss phenomenology's relevance when they do not consider that we (as researchers or subjects) can "misrepresent" our phenomenology (2007, p. 234). In order to explain what Noë means here, it is helpful to explain a crucial distinction in his argument. According to Noë, it is important to take a subject seriously when he or she reports his or her first person experience, *but* we (the researchers) should not treat this as the "last word" (2007, p. 233). Noë's example is that if a subject tells you that "two lights match in hue", this does not mean that the subject experiences the same hue (2007, p. 233). It might be the case that

these subjects are not in a "normal state", or that they have something affecting their experience or their ability to report their experience (Noë, 2007, p. 233). Noë states that researchers often attack pure phenomenology when they do not consider that we (as researchers or subjects) can "misrepresent" our phenomenology (2007, p. 234). Using the example of change blindness to illustrate his point, Noë says that researchers tend to start with the claim that visual phenomenology is pictorial. As he states in further detail,

> The idea is that it seems to us, when we see, as if we are confronted by a representation of *all* the environmental detail in sharp focus and uniform detail from the center out to the periphery. Change blindness has been taken (whether validly or not) to provide prima facie evidence that the internal substrate needed to support the existence of picture-like experiences is lacking. (Noë, 2007, p. 234)

Several researchers have taken this to mean that normal perceivers are victims of a "grand illusion", whereby our belief does not match reality. In other words, the illusion is what we believe to be the case is not actually the case. Noë, on the other hand, questions the 'grand illusion' interpretation by considering whether the subject could have mischaracterised their phenomenology (2007, p. 234). Perhaps, for instance, the subject mischaracterised his experience due to lack in ability to carefully describe the experience. Noë reasons that this option is not taken seriously because many researchers work with the assumption that what we believe to be the case is "irrelevant"[32] when trying to determine the facts about perception (2007, p. 234). But, again, assuming that claims about the way the world is and our phenomenology are distinct "is tantamount to the idea that the subject matter of phenomenology is an autonomous domain of mere seemings" (Noë, 2006, p. 234). In other words, this is a sign of pure phenomenology, not

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[32] I highlighted the term 'irrelevant' in the quote as this is precisely Spaulding's second argument against the interactionists.

integrative. For further support, consider how integrative phenomenology is relevant to scientific understanding.

Arguably the best way to illustrate phenomenology's relevance is to look at the mutual relationship between phenomenology and scientific investigations put forward by a number of integrative phenomenologists. One such position is neurophenomenology, a special form of experimental phenomenology developed by Francisco Varela and Evan Thompson where phenomenological analyses guide and shape scientific investigations, and scientific findings in turn help guide and shape phenomenological investigations (Thompson, 2007b, p. 329). Thompson refers to the relationship between phenomenology and science as one of "reciprocal constraints", which involves:

> (1) that the subject is actively involved in generating and describing specific phenomenal features of his or her experience, (2) that the neuroscientist is guided by these first-person data in the analysis and interpretation of physiological data, and (3) that the (phenomenologically enriched) neuroscientific analyses can provoke revisions and refinements of the phenomenological accounts, as well as facilitate the subject's becoming aware of previously inaccessible aspects of his or her mental life. (2007b, p. 340)

This mutually informing model is also adopted in the debate about FP. For instance, Ratcliffe argues that both phenomenology and neurobiological findings can complement each other (2007b, p. 240). On one hand, phenomenology can inform scientific accounts by describing the experience and providing the theoretical framework for scientific enquiry (e.g., mirror neurons) (Ratcliffe, 2007b, p. 240). On the other hand, fields such as neuroscience can aid in clarifying the phenomenon the phenomenologists seek to describe (Ratcliffe, 2007b, p. 240).

Therefore, phenomenology, specifically integrative phenomenology, does, or at least should, have a role to play in scientific understanding, which means that integrative phenomenology is relevant in scientific studies, e.g., the debate about FP.

At this point, Spaulding might object and reiterate the force of her first argument that phenomenology is fallible. Again, however, this will be shown to be more of a problem for pure phenomenology than integrative phenomenology. Integrative phenomenology believes that we can err in our phenomenology, but we can also attempt to correct it. It is this openness to correction that also separates pure from integrative phenomenology. Since, as pure phenomenologists, we are not concerned with claims about the way the world is, we can only focus on what seems to be the case to us. Therefore, we have no way of correcting our respective views. Although error is still an issue for integrative phenomenology, it does not bring our phenomenological investigations to a halt, as integrative phenomenology does not focus solely on what seems to be the case to the individual. This is similar to Zahavi's argument against Dennett's claim that phenomenology is based on introspection. Although Zahavi agrees with Dennett that Husserl, Heidegger and Merleau-Ponty rarely came to an agreement in their respective phenomenological writings, he adds that no one appealed to "better introspective evidence" (Zahavi, 2007, p. 28). In other words, they did not base their respective arguments solely on how things seemed individually.

Rather, integrative phenomenologists seek to understand the nature of experience in general, which is open for intersubjective testing and verification. Using the nature of perception as an example, Noë says, "My grounds for thinking that experience is an encounter with things and situations is an evaluation of perception and its nature, an evaluation subject to re-evaluation in light of anything else we might know or come to learn about perception and its character"

(2006, p. 236) . In pursing phenomenology this way, according to Noë, I am open to re-evaluating my original assertions about the phenomenon in question. Again, Zahavi would agree, as he claims that phenomenology is "intersubjectively accessible," in that phenomenological analysis is always open for "corrections and control by any (phenomenologically tuned) subject" (2007, p. 31).

Since the interactionists integrate phenomenology and empirical science, they are less vulnerable to error, as they are open to the possibility of revising their phenomenological claims. Therefore, Spaulding's arguments are rendered ineffective, as she targets and rejects a different form of phenomenology than the interactionists adopt. Furthermore, although theory and simulation are concerned with non-phenomenological processes, those processes are postulated in order to account for a phenomenon that is at least partly phenomenological in character. Therefore, phenomenology is relevant as it is required in order not to mischaracterize the phenomenon in question.

Exaggerated Use of Belief

I end this chapter by addressing another argument against Dennett's heterophenomenology that has implications for the proponents of FP, which also shapes the remaining chapters of this thesis. Hubert Dreyfus and Sean Kelly (2007) and Taylor Carman (2006) raise the issue that Dennett fails to distinguish between "how things seem to us and how we think they seem" (Carman, 2007, p. 99). One of the consequences of failing to make this distinction is that, according to Dreyfus and Kelly, Dennett 'over-populates' the use of belief.

In advancing their argument, Dreyfus and Kelly present various positions in traditional phenomenology taken to describe the distinction between reflective experience and prereflective experience, which Dreyfus and Kelly call "naive-involved experience" (2007, p. 46). Take the following personal example to highlight the distinction. During my first week at a new teaching position, I asked the Chair of the Department for the photocopier's passcode, as I needed to make some photocopies for my class. He was a bit puzzled and said "I'm not sure. Follow me to the photocopier so I can punch it in and then tell you". The point is that he could not tell me what the code was from reflection. Rather, he had to be immersed in the activity to show me what it was.

Dreyfus and Kelly also discuss how difficult it is to give a description of prereflective experience, as providing a description of this experience almost always entails doing so from a reflective point of view. More importantly, it is often the case that we often adopt a reflective stance when trying to describe our prereflective experience. Put this way, the problem is like giving a description of the present moment. As soon as one begins to explain the present moment, it has moved to the past, making it the past and not the present. For example, I often type my username and password for my email account without reflection. In those instances when I intentionally reflect on my username and password, I often forget what they are. In many instances, the only way I "remember" is to stop reflecting and allow my fingers to type out the sequence on the keyboard that I have done many times before (more on this kind of experience in the next chapter).

Dreyfus and Kelly state that Dennett's heterophenomenological project seems promising to address the issue of describing prereflective experience, as it instructs the subject to report "exactly what he is experiencing as he experiences it" (2007, p. 47). However, they argue that Dennett fails to distinguish between reflective and prereflective experience by reinterpreting all

of the data as reflective experience. Their evidence for this claim is Dennett's insistence that the heterophenomenologist interpret the subject's description of her experience as what the subject 'believes to be the case'. For example, Dreyfus and Kelly describe Sartre's example of someone running after a streetcar as an example of prereflective experience that the heterophenomenological method could describe. They add that if one were to equip the person chasing the streetcar with a microphone, we might hear this person muttering "getting closer, getting closer" the closer he got to the streetcar. Dreyfus and Kelly, however, take issue with Dennett's claim that the heterophenomenologist would record and interpret this statement in terms of what this person 'believes' to be the case. Therefore, rather than recording the utterance as "getting closer", the heterophenomenologist would record it as "The subject believes that he is getting closer" (Dreyfus & Kelly, 2007, p. 47).

Their central problem is that Sartre's example illustrates prereflective experience, but Dennett's heterophenomenologist takes all prereflective experience and interprets it into reflective experience. As they say in more detail:

> The heterophenomenologist understands the agent as in effect reporting: "I believe the streetcar is getting closer." In so interpreting the raw data the heterophenomenologist adds both that there is an "I" having the experience being reported and that the experience is properly characterized as the subject's belief that he is having the experience. (Dreyfus & Kelly, 2007, p. 46)

Dreyfus and Kelly reason that the driving force behind the overpopulated use of belief is the assumption that in order for behaviour to be intentional, it must involve beliefs. This position, however, is not exclusive to Dennett, as the proponents of FP claim we understand others'

intentional behaviour centrally by attributing beliefs and desires. Dreyfus and Kelly, however, claim that some activities are intentional, but do not involve beliefs. This is best exemplified in cases of prereflective experience. More specifically, they refer to the concept of skillful coping whereby we are solicited by the situation at hand to act in intentional ways without the recourse to beliefs. Several of their examples include:

> In backing away from the "close talker," in stepping skillfully over the obstacle, in reaching "automatically" for the proffered handshake, we find ourselves acting in definite ways without ever having decided to do so. In responding to the environment this way we feel ourselves giving in to its demands. (Dreyfus & Kelly, 2007, p. 52)

For the most part, the phenomenon of skillful coping is best exemplified in Dreyfus' account of expertise. According to Dreyfus, experts in a particular activity respond to the situation in the way described above. In the remaining chapters of this thesis, I appeal to Dreyfus' account of expertise and argue in favour of an account of prereflective social coordination, which is central to 'social expertise'. In order to do so, the next chapter is dedicated to explicating and defending Dreyfus' non-representational account of expertise.

Conclusion

In conclusion, this chapter has defended the interactionists' positions against Herschbach and Spaulding's respective arguments. I think it is important that philosophers such as Spaulding and Herschbach are starting to respond to the phenomenological critique, as they present

opportunities for the proponents of FP to defend their positions against the interactionists, and at the same time opens up opportunities for the interactionists to clarify and refine their positions.

The first part of my defence focused on Herschbach's premise that FP can come in on-line forms, e.g., on-line false belief understanding, which supports the claim that FP is more widespread than the interactionists acknowledge. However, I have shown that the studies Herschbach uses as support either presuppose FP from the start or support the interactionists' position rather than FP. I ended by discussing alternate ways of distinguishing FP from its critics than Herschbach's on-line/off-line distinction. Here I argued that the frequency with which we use FP is the criterion used to distinguish the proponents of FP and its critics.

The second half of this chapter focused on Spaulding's arguments against the interactionists. However, I have shown that her target in both arguments is a version of phenomenology that the interactionists do not endorse. By discussing Noë's distinction between pure and integrative phenomenology, I have shown that Spaulding's arguments that phenomenology is irrelevant and fallible apply to pure phenomenology, not integrative phenomenology. Furthermore, I demonstrated that integrative phenomenology has a way to address the fallibility argument and is shown to be relevant in scientific studies.

I concluded this chapter with a brief discussion of Dreyfus and Kelly's (2007) critique of Dennett's exaggerated use of beliefs in understanding intentional action. Discussing their critique at this point acts as the bridge to chapter 4 where I further detail Dreyfus' account of expertise. As I stated in the introduction, the aim of this thesis is to supplement the interactionist alternatives to FP by developing a new concept I call 'intersubjective maximal grip' (IMG). Since this concept stems from a discussion of the alternatives to FP as well as Dreyfus' account of expertise, the next chapter provides an exposition of his position. In addition to espousing

Dreyfus' view in the next chapter, I also make the argument that he is a Radical Anti-

Intellectualist regarding expertise, which I defend in chapter 5.

Chapter 4: Dreyfus on Expertise

Chapter 3 defended the interactionists' arguments against FP. Specifically, I undermined Herschbach's argument by demonstrating that his premise that FP can come in on-line forms was false. I also showed that Spaulding's arguments against the interactionists were based on a version of phenomenology that the interactionists do not endorse. To make this argument, I linked Spaulding's position to Dennett's objection to phenomenology and then presented several responses to Dennett. I concluded chapter 3 with a brief discussion of Dreyfus' objection to Dennett's overreliance on 'belief' and Dreyfus' claim that action can be intentional without the need of mental representations. In Dreyfus' words, "[Intentional action] can be *purposive* without the agent entertaining a *purpose*" (2002a, p. 379). As I proposed in the introductory chapter of this thesis, Dreyfus' account of expertise can supplement the interactionists' argument against FP by detailing an account of social expertise that does not rely on the attribution of beliefs and desires. This chapter outlines Dreyfus' account of expertise by first tracing its origins to the debate about artificial intelligence, followed by describing the five stages typically involved in adult expertise, and then discussing how central concepts in traditional phenomenology (e.g., intentional arc, maximal grip, and time-consciousness) support Dreyfus' argument.

The second half of the chapter links Dreyfus' position to Gilbert Ryle's distinction between know-how and know-that. To do so, I start with an exposition of Ryle's distinction and a number of positions that arose in response to Ryle's distinction. For instance, Intellectualists argue that matters of know-how are reducible to know-that, Moderate Anti-Intellectualists

maintain that know-how and know-that are distinct kinds, and Radical Anti-Intellectualists argue that know-that is reducible to know-how. I then argue that these positions could be fruitful to the debate about expertise and argue that Dreyfus is a Radical Anti-Intellectualist. I start with Dreyfus' account of expertise

Dreyfus and Skill Acquisition

Hubert Dreyfus presents his account of skill acquisition in order to counter the strong representationalist claim that all intentional action requires propositional thought. His position originated as a response to the debate about artificial intelligence (AI). Although the debate about AI is not my concern for this chapter, I will briefly discuss Dreyfus' position regarding AI in order to contextualise his account of expertise[33].

Dreyfus' arguments against AI primarily targeted those who advanced the 'physical symbol hypothesis', which claims that the, "possession of the basic resources of a physical symbol system is both the necessary and sufficient condition for intelligent behaviour" (Dreyfus & Dreyfus, 1986, p. 27). According to Dreyfus, proponents of AI advanced the "information-processing model of the mind" whereby they believed that computers could represent anything, including "features of the real world", as symbols and run programs to process these symbols to generate specific outcomes (1984, p. 15). Although proponents of AI believed that computers could "simulate certain important aspects of intelligence," Dreyfus notes that the theory that the mind is a "symbol processor" experienced an impasse: AI could not account for/program

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[33] For a lengthier account of the history of AI and Dreyfus' response to it see *What Computers Can't Do* (1972) and its follow up *What Computers Still Can't Do* (1992).

'common sense' (1984, p.15). According to Dreyfus, the problem began with designing a program to understand children's stories. As it turned out, "the programs lacked the common sense of a four-year-old" (Dreyfus, 1984, p. 16).

Dreyfus argues that the source of the problem is "an old philosophical dream" (Dreyfus, 1984, p. 16), which claims that intelligence is a matter of formulating and processing rules. Dreyfus traces this position throughout the history of philosophy, claiming that Descartes argued that symbolic representations were "complex descriptions built up out of primitive ideas or elements", that Kant argued that "concepts were rules", and that Frege showed that "rules could be formalized so that they could be manipulated without intuition or interpretation" (1984, p. 16). AI, according to Dreyfus, continued this philosophical dream by looking for a way to formalise the rules and representations of cognition into a computer program. However, formulating these rules and representations was much more difficult than originally the proponents of AI believed it would be (Dreyfus, 1984, p. 16)

Dreyfus, then, describes how "knowledge engineering" emerged after facing the problems with AI's ambitious project. Unlike the proponents of AI, knowledge engineers argue that in areas "cut off from everyday common sense and social intercourse", a machine only needs "some general rules and lots of very specific knowledge" to become an expert (Dreyfus, 1984, p.17). For instance, as Dreyfus and Dreyfus (1986) describe, knowledge engineers would interview leading experts in a wide variety of skills to discern how these experts made their judgments. From the experts' answers, the knowledge engineers could "codify that knowledge so computers can make similar decisions by emulating human inferential reasoning" (Dreyfus, 1984, p. 101). The driving idea behind the knowledge engineer's project was that the expert system builder need only implement the rules the expert follows into a computer program

(Dreyfus, 1984, p.19). However, knowledge engineers also faced a problem: experts were often unable to articulate the rules involved in the activity in which they are experts.

To explain this problem, Dreyfus provides a "phenomenology of skill acquisition", which explains that it is difficult to elucidate the expert's knowledge since "The expert is simply not following any rules" (Dreyfus, 1984, p. 30)![34] As Dreyfus further explains,

> In the face of this impasse, in spite of the authority and influence of Plato and 2000 years of philosophy, we must take a fresh look at what a skill is and what the expert acquires when he achieves expertise. We must be prepared to abandon the traditional view that a beginner starts with specific cases and, as he becomes more proficient, abstracts and interiorizes more and more sophisticated rules. It might turn out that skill acquisition moves in just the opposite direction: from abstract rules to particular cases. (1984, p. 22)

Dreyfus then sets out to demonstrate that there are some forms of intelligent behaviour that are non-representational/non-propositional. While focusing on the phenomenon of learning a skill, Dreyfus argues that although we may start learning a skill by using rules and representations in some instances, we leave these rules and representations behind once we become an expert. Dreyfus also states that his account applies to a wide range of experts in a number of different activities: "airplane pilots, chess players, automobile drivers, and adult learners of a second language" (Dreyfus & Dreyfus, 1986, p. 20). To explain his position further, Dreyfus introduces his five-step model of expertise, beginning with the novice.

Novice

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[34] I address the potential objection that the expert may be following rules at the subpersonal level in the next chapter.

According to Dreyfus, adult novices often begin learning new skills via basic instructions, which primarily consist of rules for the activity. For instance, one rule for learning to drive a car is to shift to second gear when the speedometer reaches ten miles an hour (Dreyfus, 2002a, p. 368). The key point of this stage is that these rules are generally context free. In other words, one does not need to have any experience of driving a car to comprehend the rule to shift to second gear when the speedometer reaches ten miles an hour. However, these context free rules are quite limited, as a learner will experience many situations when this rule will be imprudent, e.g., driving up a steep hill, or when a pedestrian walks in front of the vehicle.

Advanced Beginner

To address the limitations of the stark rules in the novice stage, a learner uses maxims, which require some familiarity with the activity. One does not need to have any experience of driving a car to comprehend the rule to shift to second gear when the speedometer reaches ten miles an hour. Maxims, however, require some familiarity with the activity. To return to Dreyfus' car example, we replace the rule "shift to second gear at ten miles an hour" to the maxim "Shift up when the motor sounds like it is racing and down when it sounds like it is straining" (Dreyfus, 2002a, p. 369). The ability to discern various engine noises requires some driving experience, as engine noises are difficult to describe.

Competent Performer

Over time, the learner generally reaches the competent stage, which acts as the transition stage to becoming an expert. Here the role of the emotions is crucial, as the learner often develops a sense of frustration with the limitations of rules and maxims. According to Dreyfus, as we progress in learning a skill, we notice that there are many "subtle, nuanced ways" involved in any skill that cannot be accounted for by rules or maxims, which is almost always followed by a negative emotional response, e.g., overwhelmed, frustrated, and afraid (2002a, p. 369). However, Dreyfus says this emotional response is actually a good thing, as it cues the transition from rule following to intuitive response. In his words, "emotional involvement seems to play an essential role in switching over from what one might roughly think of as a left-hemisphere analytic approach to a right-hemisphere holistic one" (Dreyfus, 2002b, p. 423). In other words, it starts the move from theoretical knowledge to atheoretical knowledge; from representational knowledge to non-representational knowledge.

I started to learn how to play backgammon in 2009 from my wife and mother-in-law. They began by teaching certain "rules" that I should follow if I rolled a specific combination of dice. For example, if I rolled a six and a one, then I should do X; if I rolled a five and a three, then I should do Y. I set out to memorize these various combinations and corresponding actions, as I believed they would lead me to becoming an expert backgammon player. However, I became frustrated as there were situations when I would apply these rules to my disadvantage. For example, my opponents' pieces were aligned in such a way that they prevented me from implementing the new rule I had learned and I was forced to make an alternative move, which left me vulnerable. Frustrated, I responded by saying "I thought you said that if I rolled X that I should do Y!" Their response only added to my frustration: "Well you don't do X every time!" I

became rather discouraged and felt I would never learn how to play this game. Dreyfus says that the learner's emotional response is essential for the learner to progress in the activity. The learner avoids actions that result in negative emotions and repeats actions that lead to positive emotions (2005, p. 131). This is at least true in my learning to play backgammon. When a particular strategy worked in my favour, I was elated. When it did not work, I was disappointed. The disappointment and frustration propelled me to play better, which, I think, I have done.

Proficient Performer

At the proficient stage, the learner can recognise what she must do in a given situation through a developed intuition, but must still decide what to do. According to Dreyfus, "Proficiency seems to develop if, and only if, experience is assimilated in this atheoretical way and intuitive behavior replaces reasoned responses" (2002a, pp. 370-371). It is helpful to contrast the proficient driver with the competent driver discussed earlier. The competent driver does not automatically recognise the goal and must decide how to achieve the goal once it is recognised.

For example, the competent driver is still in the process of learning to see certain aspects as salient, and then once they have perceived something as important, they must decide what to do. On the other hand, the proficient driver can see what must be done intuitively, but still has to decide what to do before doing it. In Dreyfus' terms, "…in any given situation, rather than having to figure out which perspective to take or goal to pursue, the learner finds that *the situation directly shows up perspectivally*, but at this stage, which we might call mere proficiency, the learner still needs to *figure out* what to do" (2005, p. 131).

Expert

Unlike the proficient learner, the expert can recognise *and* react intuitively. For the expert, "What must be done, simply is done" (Dreyfus, 2002a, p. 372). According to Dreyfus, the expert driver will, "without any awareness, not only feel when slowing down on an off-ramp is required, he or she knows how to perform the appropriate action without calculating and comparing alternatives" (2002a, p. 372). Intuitive reaction, then, is characteristic of the expert.

Since the expert relies primarily on intuitive reactions, Dreyfus says an experts' skilful coping is in direct contrast to the strong representationalist account. To quote Dreyfus, "skillful coping does not require a mental representation of its goal. It can be *purposive* without the agent entertaining a *purpose*" (2002a, p. 379). This last stage solidifies Dreyfus' position against the strong representationalist, as he has shown that there is a form of intentional action that does not require mental representations.

In order to further argue for this account of intentional action, Dreyfus draws on two central concepts from Merleau-Ponty: the intentional arc and maximal grip, which I will now explain in order.

Intentional Arc & Maximal Grip

According to Dreyfus, the intentional arc refers to the way skills are "stored". Whereas cognitivists say skills are stored as representations in the mind, the intentional arc refers to the way skills are stored as "dispositions to respond" to situations at hand (Dreyfus, 2002a, p. 367-368). In this way, the intentional arc names how our past experiences shape our reaction to

similar situations. In Dreyfus' terms, "The idea of an intentional arc is meant to capture the idea that all past experience is projected back into the world. The best representation of the world is thus the world itself" (2002a, p. 373). As Dreyfus explains in more detail:

> What one has learned appears in the way the world shows up; it is not represented in the mind and added on to the present experience. That is, according to Merleau-Ponty, what the learner acquires through experience is not represented in the mind at all but is presented to the learner as a more and more finely discriminated situation, which then solicits a more and more refined response. In so far as the situation does not clearly solicit a single response or the response does not produce a satisfactory result, the learner is led to further refine his discriminations. Merleau-Ponty calls this feed-back loop the intentional arc. (2002a, p. 373)

Arguing that certain aspects of our mental life are not "stored" in the mind is not unique to Dreyfus or Merleau-Ponty. For instance, stemming from Hilary Putnam's argument that linguistic meaning "just ain't in the head!" (1973, 704), Andy Clark and David Chalmers (1998) argue for the Extended Mind thesis, which claims that "Cognitive processes ain't (all) in the head!" (p. 8)[35].

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[35] In framing their position, Clark and Chalmers start with the following motivating question: "Where does the mind stop and the rest of the world begin?" (1998, p. 7). Clark and Chalmers argue for an active externalism, based on the active role of the environment in driving cognitive processes (Clark & Chalmers, 1998, p. 7).Clark and Chalmers' central example is Otto. Otto suffers from Alzheimers and carries a notebook around with him to write down new information as he will likely forget the information without the aid of the notebook. As they say, "For Otto, his notebook plays the role usually played by a biological memory" (Clark & Chalmers, 1998, p. 12). To strengthen their argument, Clark and Chalmers introduce Twin Otto, who is biologically identical to Otto but who has mistakenly wrote the address of the Museum's location in his notebook as 51st street (1998, p. 14). The crux is that if Otto believes the Museum is on 53rd and Twin Otto believes it is on 51st and they are biologically identical, then "a belief is simply not in the head" (Clark & Chalmers, 1998, p. 14). Although Dreyfus' position significantly differs from Clark and Chalmers' position, this brief mention of the Extended Mind thesis was meant to demonstrate that others have argued for other ways in which aspects of our mental life are not "stored" within our skull.

After explaining the intentional arc, Dreyfus states that we still need "to consider an even tighter relation between an active agent and the object he is dealing with" (2002a, p. 378). Dreyfus' solution is Merleau-Ponty's concept of 'maximal grip'. In a number of articles (1992, 2002a, 2002b, 2005), Dreyfus references Merleau-Ponty's notion of maximal grip (hereafter MG) to support his argument against the representationalist account of skill acquisition. Whereas the intentional arc refers to the way the body responds through dispositions to act (not "stored" mental representations"), MG refers to the way the body seeks out our optimal position in a situation (Dreyfus, 2002a, p. 367-368). According to Merleau-Ponty, MG refers to the way we seek to obtain a better perspective in a situation via our body without the use of mental representations. Merleau-Ponty offers the example of looking at paintings in an art gallery (1962, p. 302). According to Merleau-Ponty, everyone's optimal position to view the same painting would be different, as our optimal position is determined by a number of dynamic variables, e.g., one's height in relation to the height of the painting, one's vision (either near- or far-sighted), the lighting in the room, and the texture of the painting. The crux for Merleau-Ponty is that we do not seek this optimal position by processing representations.

Dreyfus appeals to MG, as it describes a case of intentional action that is not representational. Dreyfus claims, "One's body is simply solicited by the situation to get into equilibrium with it [the optimum position]" (2002a, pg. 379). Dreyfus elaborates elsewhere that,

> Merleau-Ponty is clear that for this movement toward maximal grip to take place, one does not need a representation of a goal. Rather, acting is experienced as a steady flow of skillful activity in response to one's sense of the situation. Part of that experience is a sense of whether or not coping is going well. When one senses a deviation from the optimal body-environment gestalt, one's activity tends

to take one closer to an optimal body-environment relationship that relieves the "tension". (Dreyfus, 2005, pp. 137-138)

For further clarification, consider Dreyfus' example of playing tennis. When learning to return a serve in tennis, the beginner has to make a conscious effort to embody a number of elementary rules, e.g., keep one's eye on the ball, and hold the racket in a specific way. On the other hand, the expert, having gone through a rigorous learning process, simply reacts to the serve. According to Dreyfus, the expert's experience, "is more like one's arm going up and its being drawn to the appropriate position, the racket forming the optimal angle with the court" (2002a, p. 379). To further elaborate the point that this experience is not representational, Dreyfus adds:

> Indeed, I cannot represent how I should turn my racket since I do not know what I do when I return the ball. I may once have been told to hold my racket perpendicular to the court, and I may have succeeded in doing so, but now experience has sculpted my swing to the situation in a far more subtle and appropriate way than I could have achieved as a beginner following this rule. (2002a, p. 379)

This quote reinforces Dreyfus' point that experts transition out of using rules and representations. Furthermore, according to Dreyfus, regressing to using rules and representations often results in choking, a failed attempt by someone skilled in the activity. For instance, if, during a match, I reflect on how to hold my tennis racket, I will likely fail to return the serve. If so, then I choked due to my reflection of how to perform the act whereas I should have responded to the situation[36].

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[36] I discuss the relationship between choking and Dreyfus' account in further detail in the next chapter.

Although Dreyfus briefly mentions the temporal aspect of MG (2005, p. 136), I will expand on this discussion by discussing Edmund Husserl's account of time-consciousness, as it further supports Dreyfus' account of prereflective expertise.

MG and Temporality

According to Husserl (1991), experience involves a temporal process characterised by three elements: primal impression, retention, and protention. The primal impression is the present, now, or as Husserl describes it, the "source-point" (1991, p. 50). However, as some commentators note (e.g., Lanei Rodemeyer, 2003, p. 128), Husserl took the now point as an abstraction, as we never experience a now moment in isolation. As Rodemeyer says, "My experience of "now" is not at all of a point (nor of a primal impression), but instead already contains aspects of it which are futural and past, namely protention and retention" (2003, p. 128).

Retentions are the "dying" or the "fading away" experiences of the primal impression (Husserl, 1991, p. 52). In Husserl's terms, retentions are "primarily remembered" (Husserl, 1991, p. 53). By this, he means that unlike memories, which are generally farther away from our experience of the present, retentions remain in conscious experience. The example that Husserl uses to illustrate his account of time-consciousness is listening to a melody. In a melody, the primal impression is the present note we experience. However, we also retain the previous note in consciousness as it gradually fades away from the primal impression. In other words, it transitions from the present to the past. The anticipation of the next note in the melody describes protention.

Protention is often taken to be retention in reverse, i.e., if retention is the fading backwards of experience, protention is the moving forwards of experience. It is the prospective

aspect of time-consciousness whereby consciousness is open to impending experience. According to Husserl, "Every primordially constitutive process is animated by protentions which... constitute and intercept what is coming, as such, in order to bring it to fulfillment" (1991, p. 76). In the melody, we anticipate the next note we will experience in order to complete the melody.

Perhaps the best way to understand this is if the melody breaks down. For example, I like to tease my younger cousins by getting them to sing the popular children's lullaby "Twinkle Twinkle Little Star", but instead of singing "Star" in its regular note, I would sing it in a lower note. For instance, 'CC GG AA G' is a standard representation of the lullaby. I, on the other hand, would sing it as 'CC GG AA E'. The crux is that if the child does not know I normally replace the note, she will anticipate the correct note. Our anticipation for the correct note is protention at work.

Protention, then, is better understood as an anticipation of what is to, or should, come, rather than an explicit prediction. For example, whereas protention refers to the child's anticipation of the next note in the melody, an explicit prediction would be from the child's parents who might form the explicit thought "I wonder if Martin will say 'house plant' instead of 'star' this time". Temporal distance is one way to understand the difference: whereas protentions are relatively close to the primal impression, predictions are about events further in the future. Likewise, retentions are close to the primal impressions whereas memories are further away.

For further clarification, consider the following diagram representing Husserl's notion of time-consciousness[37].

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[37] This diagram is an edited version of Husserl's original diagram by Gallagher (1998 p. 50)
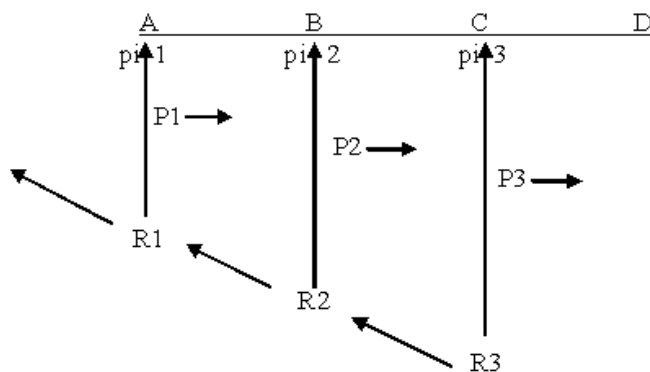
The ABCD horizontal line represents temporal objects as they appear over time. For example, the melody "Twinkle Twinkle Little Star" would be represented by separating each note in the tune as Twinkle (A) Twinkle (B) Little (C) Star (D). Pi represents the primal impression of the temporal object, e.g., the experiencing of the present or current note. Each vertical line represents the primal impression of the corresponding temporal object. R represents the retention of the primal impression as it moves to the past, e.g., the retaining of note A as the next note B is experienced. The slanting arrows pointing to the upper left represents the movement to the past.

It is important to note here that when we experience C we do not simply retain note B; we also retain note A. As James Mensch explains, we retain different degrees of pastness. Using the same horizontal line, ABCD, Mensch provides a symbolic representation of the different degrees of retention. Using the symbolism of the parentheses, their retained presence would be, successively, "(A), (B(A)), (C(B(A))), (D(C(B(A))))" (Mensch, 2001, p. 100). In other words, when we experience note C, we are also retaining notes B and A, and when we experience note D, we experience, C, B, and A. Lastly, P represents the protention or anticipation of the next temporal object, or the next note in the tune of our example. The arrows pointing to the right

represent this movement forward. Like retention, in protention we are constantly anticipating. In Mensch's symbolic representation, if we protend D, the approach to D is represented as [A[B[C[D]]]], [B[C[D]]], [C[D]], [D], D. If these moments are given in order, "then the subject's grasp of the future is confirmed" (Mensch, 2001, p. 101). When this entire process is at work it gives consciousness a "streaming" like quality.

Husserl's notion of protention does not restrict itself to the perception of melodies. For the purposes of this chapter, I will only look at the way in which our bodies engage with the environment. I think this is illustrated nicely by Mensch's example of reaching for a glass of water. In reaching for a glass, we must make the appropriate bodily adjustments in order to accomplish the task and this centrally involves protention. In Mensch's words:

> Suppose, for example, I reach for a glass. As my arm moves toward it, the fingers of my hand extend to its anticipated shape. My arm extends to its anticipated distance. Grasping the glass, I apply just enough strength to lift its anticipated weight. Knowing how to do this involves having the correct anticipations. In the performance of this action, each anticipation is matched by a corresponding perception. When the match is perfect, the action proceeds effortlessly, the flow of perceptions being just what I anticipate. (2001, p. 101)

It should also be noted that Mensch's description complements Dreyfus' account of expert action. I say it is complementary as Dreyfus says an expert can respond to a particular situation in a way that is fluid and seamless whereas a beginner's actions are awkward and cumbersome. First, Mensch's example shares similarities with Dreyfus' tennis example. When reaching for the glass of water, we have to anticipate the shape of the glass, the distance between the glass and my hand that is gradually moving closer and closer to it, we have to apply the

appropriate amount of strength, and so on. When raising the tennis racket, we have to anticipate the weight of the racket, its shape and length, the strength with which to hold it in anticipation of swinging it to strike the ball as it approaches, and so on. The point is to get the arm to the appropriate position, which involves making the appropriate anticipations in order to achieve this action. In addition, I am reminded of when I first started to learn how to play the guitar. I watched a number of hours of video clips of Jimi Hendrix playing his guitar where his actions appeared effortless. However, my actions were not; in some instances they were painful. One way of looking at the difference is that his anticipations matched his perceptions, which accounted for the fluid nature. I, as a beginner, have not developed this fluid response.

According to Rodemeyer, there is a strong link between protention and motion in general. As Rodemeyer says, motion requires protention because "motion is in itself always one step ahead of the sensation. I must be intending motion just prior to intending the feeling in order to be moving and thus facilitating the feeling" (2003, p. 136). Rodemeyer also states that motion in this sense has a twofold notion of expectation whereby we anticipate the sensation, e.g., the feeling of an object like the keyboard on my laptop, and the ability "to be ahead of myself" in order to move. Both, she states, requires protention (2003, p. 136).

All of this discussion of temporality is applicable to MG because in order to get the appropriate grip in a specific situation, one must be ahead of oneself in order to achieve the optimum for that situation. We can also see how this fits with MG as this concept is a "seeking" of the optimum. Therefore, MG centrally involves such anticipation.

Although the majority of Dreyfus' work on expertise is heavily influenced by phenomenologists (notably Merleau-Ponty and Heidegger), his position also has an important connection with Gilbert Ryle's distinction between know-how and know-that. In the next

section, I start with a brief exposition of Ryle's distinction between know-how and know-that, then I will show how Dreyfus' account relates to Ryle's distinction in order to set up my argument that Dreyfus is a Radical Anti-Intellectualist regarding expertise.

Dreyfus and Ryle

Ryle introduces the distinction between know-how and know-that to undermine what he calls the "intellectualist legend", which claims that in order for an action to be considered intelligent, the action must be preceded by, or stem from, a thought or reason for the action. As Ryle says, according to the "champions of this legend",

> intelligent performance involves the observance of rules, or the application of criteria. It follows that the operation which is characterised as intelligent must be preceded by an intellectual acknowledgment of these rules or criteria; that is, the agent must first go through the internal process of avowing to himself certain propositions about what is to be done…; only then can he execute his performance in accordance with those dictates. (1949, p. 29)

In response, Ryle argues that the intellectualist legend commits a vicious regress, "a logical impossibility for anyone to ever break into the circle" (Ryle, 1949, p. 30). Generally speaking, the argument is as follows: If we say that an intelligent action requires a preceding consideration of a proposition (or reason), then once we provide that proposition we can ask why consider that specific proposition? According to the 'champions of the legend', in order for the answer to be considered intelligent, the answer, too, must require a preceding reflection, which would also require a preceding reflection, and another, and so on *ad infinitum*.

To avoid this regress, Ryle introduces 'know-how', which describes a form of knowledge that is not demonstrated through articulating and justifying specific propositions. Rather, knowledge is simply demonstrated through an activity's performance. To illustrate this point, Ryle offers a number of examples, e.g., it is possible that someone could learn to play chess without "ever hearing or reading the rules at all" (1949, p. 41). Whereas the Intellectualists would test to see if this person had 'knowledge' of how to play chess by questioning whether he knew the appropriate propositions, Ryle says that we test for knowledge through the ability to play chess. As Ryle says,

> He must be able to make the required moves. But, he is said to know how to play if, although he cannot cite the rules, he normally does make the permitted moves, avoid the forbidden moves and protest if his opponent makes forbidden moves. His knowledge *how* is exercised primarily in the moves that he makes, or concedes, and in the moves that he avoids or vetoes. So long as he can observe the rules, we do not care if he cannot also formulate them. (1949, p. 41)

Listing other examples, Ryle says that a boxer is deemed clever "in light of how he fights" (1949, p. 48) and a surgeon's skill is determined by "his hands making the correct movements" (1949, p. 49). The crucial point is that, "they are appraised as clever, skilful, inspired or shrewd not for the ways in which they consider, if they consider at all, prescriptions for conducting their special performances, but for the ways in which they conduct those performances themselves" (Ryle, 1949, p. 48).

Ryle's defence of the position that some forms of action are intelligent without involving propositional thought demonstrates a similarity with Dreyfus' position. For instance, Dreyfus

even makes an explicit reference to the distinction between know-how and know-that while further illustrating his account of expertise in the following quotation:

> You probably know how to ride a bicycle. Does that mean you can formulate specific rules that would successfully teach someone else how to do it? How would you explain the difference between the feeling of falling over and the perfectly normal sense of being slightly off balance when turning...You can ride a bicycle because you possess something called "know-how", which you acquired from practice and sometimes painful experience. The fact that you can't put what you have learned into words means that know-how is not accessible to you in the form of facts and rules. If it were, we would say that you "know that" certain rules produce proficient bicycle riding. (Dreyfus & Dreyfus, 1986, p. 16)

Additionally, Dreyfus says that an expert's intuition is interchangeable with know-how:

> When we speak of intuition of know-how, we are referring to the understanding that effortlessly occurs upon seeing similarities with previous experiences. We shall use "intuition" and "know-how" as synonymous, although a dictionary would distinguish them, assigning "intuition" to purely cognitive activities and "know-how" to fluid performance of a bodily skill. (Dreyfus & Dreyfus, 1986, p. 28)

Elsewhere Dreyfus and Dreyfus claim that the 'common-sense' exhibited by the expert is a matter of know-how:

> Given this account of the five stages of skill acquisition, we can understand why the common-sense knowledge problem has proved to be so hard. Common-sense understanding might well be everyday know-how. By know-how I do not mean

propositional knowledge nor even procedural rules, but knowing what to do in a

vast number of special cases. (1986, p. 29)

Linking Ryle's distinction between know-how and know-that to Dreyfus' account not

only is a helpful way of contextualising Dreyfus' position, it also helps to understand some of

Dreyfus' critics, as they often understand and frame their critiques around Ryle's distinction. For

instance, as I describe in further detail in the next chapter, Evan Selinger and Robert Crease

(2002) argue that Dreyfus' account excludes people who should be considered experts. In

making this argument, they introduce the distinction between 'expert x' and 'expert in x'. Using

Ryle's distinction, Selinger and Crease say that a farmer is an 'expert x' who uses know-how

whereas the Secretary of Agriculture is an 'expert in x' who uses know-that (2002, p. 258).

Selinger and Crease object to Dreyfus' dismissal of an 'expert in x'. In other words, they object

to the claim that Dreyfus' account only considers 'expert x' as experts (i.e., expertise is a matter

of know-how).

A complementary critique to Selinger and Crease (2002) comes from Barbara Montero

and C. D. A. Evans (2011), who argue against Dreyfus' account of expertise as it applies to

playing chess. As they state, Dreyfus argues that an expert chess player relies on intuition, which

is arational. In this context, rationality refers to the ability to describe the situation at hand in

propositional terms. Since Dreyfus would argue that expert chess players exhibit know-how, they

are often unable to fully articulate the reasons for their actions. Contrary to Dreyfus, Montero

and Evans argue that even this 'arational intuition' is rational "through and through" (2011, p.

178). Using Ryle's distinction, Montero and Evans argue that playing chess is a matter of know-

that; not know-how.

Before I conclude this chapter and begin my defence of Dreyfus' position against these critics in the next, I will briefly introduce several positions within the know-that/know-how debate, then I will show how the basic structure of these positions can be used within the debate about expertise.

Intellectualism, Moderate Anti-Intellectualism, & Radical Anti-Intellectualism

Since Ryle presented his distinction, a number of different positions on the know-that/know-how debate have advanced their respective stances. On one extreme, Intellectualists argue that matters of know-how are reducible to know-that, e.g., Jason Stanley (2011) and Jason Stanley and Timothy Williamson (2001). Occupying a middle stance, Moderate Anti-Intellectualists maintain that know-how and know-that are distinct kinds, i.e., that they are not reducible to each other, e.g., David Carr (1981). At the other extreme, Radical Anti-Intellectualists argue that know-that is reducible to know-how, e.g., John Hartland-Swann (1956). I will not comment on the debate concerning which Anti-Intellectualist position Ryle advocated (either Moderate or Radical), but I will use these positions on know-how and apply them to the debate about expertise and argue that Dreyfus is a Radical Anti-Intellectualist.

Although I discuss it further later in the chapter, I should make it clear that Dreyfus is only a Radical Anti-Intellectualist regarding expertise, not know-how in general. In other words, since Dreyfus readily acknowledges the distinction between know-how and know-that, he would be considered a Moderate Anti-Intellectualist regarding the general debate concerning know-

how. However, regarding the specific debate about expertise, I will argue Dreyfus is a Radical Anti-Intellectualist, as he would argue that one's expertise is a matter of know-how, even in cases that involve propositions, i.e., knowing how to apply propositions is a matter of know-how. In order to make this argument clearer, I will now present a brief discussion of the various positions on the general debate about know-how, starting with Intellectualism.

Intellectualism

Stanley and Williamson (2001) argue that Ryle's distinction between know-how and know-that is a false distinction, ultimately arguing that know-how is "simply a species of" know-that (p. 411). One central aspect of the argument against Ryle's distinction is their attack against Ryle's Regress Argument, arguably the main source of Ryle's reason for the distinction. They start by formulating the Regress Argument as follows. The first premise concerns the intellectualist claim that an intentional act requires the deployment of knowledge (know-that) on part of the actor. Stanley and Williamson (2001, p. 413) formulise the first premise as:

1) If one *F*s, one employs knowledge how to *F*.

For example, under this description, if I play hockey, then I employ the knowledge how to play hockey. If I did not have this knowledge, then I do not play hockey even if my actions may resemble playing hockey. Then, Stanley and Williamson focus on the claim that for an action to be considered intelligent, the action must be preceded by, or stem from, a thought or reason for the action, which they (2001, p. 413) formulate as:

2) If one employs knowledge that *p*, one contemplates the proposition that *p*.

As they summarise, if we say know-how is a species of know-that (if both premises are true), then we are left with an infinite regress of contemplating propositions (Stanley & Williamson, 2001, p. 414). Stanley and Williamson (2001, p. 414) formulate this as the Regress Argument (i.e., RA):

RA: knowledge how to F is knowledge that φ (F).

To undermine Ryle's argument, they target the truth and consistency of Ryle's premises. Starting with premise 1), Stanley and Williamson pose a number of counter examples that show that someone can do something without having knowledge about how to do it. For example, we digest food, but we do not know how to do it. Using the syntactical structure of premise one, they say, "(1) If Hannah digests food, she knows how to digest food. But (1) is clearly false. Digesting food is not the sort of action that one knows how to do" (Stanley & Williamson, 2001, p. 414). They then deduce that premise 1) must only refer to intentional actions.

Stanley and Williamson's also claim that premise 2) is false by giving examples of know-that that does not involve contemplation. For instance, they appeal to the example of opening a door. Since we open doors "automatically" and this, they claim, is a case of know-that, then it follows that there are examples of know-that which do not require contemplation of further propositions (Stanley & Williamson, 2001, p. 415).

The last part of their argument addresses a potential way to salvage premise 2): If premise 2) refers to actions that are not intentional (e.g., digesting food), premise 2) is rescued (Stanley & Williamson, 2001, p. 416). However, this solution will not salvage the argument as a whole; in fact, Stanley and Williamson argue it further undermines the Regress argument. If premise 1) concerns intentional action and premise 2) does not concern intentional action, then

Ryle's conclusion does not logically follow from its premises, as they work with two different notions of action. In their words,

> As we have seen, however, premise (1) is plausible only if it is restricted to intentional actions. If 'contemplates the proposition that p' in premise (2) does not refer to an intentional action, then it is not an appropriate substitution instance for 'F' in premise (1) on its true reading. If so, Ryle's argument does not get off the ground. There is no uniform reading of the two premises in Ryle's argument on which both are true; the argument is unsound. (Stanley & Williamson, 2001, p. 416)

Stanley and Williamson, then, conclude that the Regress Argument, the central argument Ryle makes for the distinction between know-how and know-that, has been refuted. As they say, "It therefore fails to establish any difficulty for the thesis that knowledge-how is a species of knowledge-that" (Stanley & Williamson, 2001, p. 416).

Another version of defending intellectualism stems from an appeal to the 'folk'. Using "experimental philosophy", John Bengson, Marc Moffett, and Jennifer Wright (2009) appeal to the judgments of the folk in order to establish prima facie evidence against those who argue that know-how and know-that are distinct. Specifically, they target Noë as a Neo-Rylean who argues that know-how is an ability and that intellectualism "over intellectualizes the mind" (Noë, 2005, p. 286). In order to prove Noë wrong, Bengson et al. (2009) appeal to the folk. As they say,

> Contra neo-Ryleans, who analyze know-how in terms of ability, the concrete case judgments of ordinary folk are most consistent with the view that there exists a set of correct necessary and sufficient conditions for know-how that does not invoke

ability, but rather a certain sort of propositional knowledge. (Bengson et al., 2009, p. 387)

Bengson et al. (2009) frame their argument around two examples from Stanley and Williamson's (2001) article. The first is of a ski instructor who knows how to perform certain stunts, but is unable to perform them herself. The second is of a master pianist who lost his arms in an accident; although he is unable to play the piano, he still knows how to do so (Bengson et al., 2009, 416). Stanley and Williamson (2009) introduce these examples to show that there are cases where someone has "knowledge" how to do something without the corresponding ability to do so. These examples, then, undermine the position that know-how is an ability. The focus of Bengson et al. (2009)'s argument concerns Noë's response to Stanley and Williamson's examples. As Noë states,

> Is it Stanley and Williamson's view that, if polled, most English speakers would share their intuition that the instructor is unable to do the jumps even though she knows how to do the jumps? I would predict that this is not true… (2005, p. 283)

Bengson et al. (2009) take Noë's argument to rest on an "empirical claim" (p. 391). Therefore, to defend intellectualism, they polled the folk to see if Noë's argument holds. Bengson et al. (2009) gave 194 participants the following story:

> Pat has been a ski instructor for 20 years, teaching people how to do complex ski stunts. He is in high demand as an instructor, since he is considered to be the best at what he does. Although an accomplished skier, he has never been able to do the stunts himself. Nonetheless, over the years he has taught many people how to do them well. In fact, a number of his students have won medals in international competitions and competed in the Olympic games. (Bengson et al., 2009, p. 391)

Although Noë would predict that the majority of the participants would claim that Pat does not know how to perform the stunts, "only a small minority of participants (7.2%) made this judgment" (Bengson et al., 2009, p. 392). In fact, 81% claimed that Pat that is unable to do them *and* knows how to perform the stunts (Bengson et al., 2009, p. 392).

> These findings stand in opposition to the charge of over-intellectualization. For they strongly suggest that, contra anti-intellectualism, ordinary judgments of know how are not sensitive to the absence of ability. (Bengson et al., 2009, pp. 391-392)

Following Ryle's initial distinction between know-how and know-that, several philosophers have made various arguments in favour of the distinction (one such argument being Noë's defence of the know-how as ability argument). Another version stems from David Carr (1981).

Moderate Anti-Intellectualism

Carr starts his position by first distinguishing himself from Ryle. Although he agrees with Ryle's conclusion (that know-how and know-that should be distinct) he disagrees with Ryle's dispositional account. In Carr's words,

> although I believe that Ryle was right to insist that procedural knowledge should be regarded on a level with theoretical knowledge as a distinct but equally important expression of human rationality (since the workings of the human mind are to be discovered in overt actions and practical skills as much as in covert theorising), I am nevertheless persuaded that his attempt to offer a dispositional

account of knowing how was unfortunate given certain intractable problems about dispositional analyses of mind and rationality. (1981, p. 55)

Rather than give a dispositional account of the distinction between know-how and know-that, Carr focuses on the differences between theoretical reasoning and practical reasoning. To start his argument, he begins with a brief discussion of Ryle's account of rationality. According to Carr, Ryle stressed that both know-how and know-that were different ways of expressing human rationality: "whereas knowing that is a function of human theorising, he argued, knowing how is an expression of rational practice" (1981, p. 57). Furthermore, Carr claims that Ryle's account of rationality involves "the power to grasp and follow various kinds of logical or rule-governed procedures" (1981, p. 57). The key, then, to distinguishing know-how from know-that, according to Carr, is to describe the differences in the logical procedures involved in both accounts of rationality. For instance, Carr formulises the logical procedure for know-that as follows:

> *A* knows that *p* only if:
>
> (1) *A* believes that *p*
>
> (2) *p* is true
>
> (3) *A* has reasonable grounds for holding that *p* (Carr, 1982, p. 57)

On the other hand, know-how involves the following three conditions:

> A knows how to φ only if:
>
> (1) A may entertain φing as a purpose

(2) A is acquainted with a set of practical procedures necessary for successful φing

(3) A exhibits recognisable success at φing. (Carr, 1982, p. 58)

From these different formulations of know-that and know-how, Carr argues that theoretical reasoning centrally involves the concept of truth whereas practical reasoning involves the concept of action, which is neither true nor false. In Carr's words,

> As already observed, however, both theoretical inferences and reports of knowing that relate importantly to the concept of truth. A theoretical inference is invalid if it fails to preserve truth and theoretical knowledge - knowing that - is of facts not falsehoods. Equally clearly the notion of truth fails to relate in any analogous way to reports of knowing how. Since that which an agent knows how to do is not a proposition but an action, it can be neither true nor false... (1981, p. 59)

Carr's position, then, is an example of Moderate Anti-Intellectualism, as he argues for a distinction between know-that and know-how, i.e., whereas know-that necessarily involves truth and theoretical knowledge, know-how involves practical knowledge that is not concerned with truth.

Lastly, unlike Moderate Anti-Intellectualists, Radical Anti-Intellectualists argue against the distinction between know-how and know-that. A central argument from the Radicals is that know-that reduces to an ability rather than an intellectual relation to a proposition. For instance, John Hartland-Swann argued for such a position shortly after Ryle published *The Concept of Mind* (1949).

Radical Anti-Intellectualism

According to Hartland-Swann, Ryle's distinction between know-how and know-that collapses after analysis and matters of know-that reduce to know-how (1956, p. 111). In other words, "when unpacked, [knowing that] always turns out to be a case of knowing how" (Hartland-Swann, 1956, p. 113). Hartland-Swann's argument starts with Ryle's point that knowing French is a matter of know-how. As an example, Hartland-Swann says that I can say that I know French if I know how to translate a French text and if someone were to ask me a question in French, I am able (know-how) to answer the question in French correctly (Hartland-Swann, 1956, p. 111). Hartland-Swann then addresses the potential objection that knowing French cannot be a matter of know-how, as it centrally involves know-that.

> At this point, however, someone might argue that the expression 'I know French' does not only imply the possession of certain abilities, competences or skills (which can be set forth in a series of 'if/then' propositions); it implies also the actual knowledge that the French word for knife is *couteau*, for boy is *garçon* and so forth. (1956, p. 111)

Hartland-Swann's "short answer" is that examples of know-that like this "can always be reduced to a case of "knowing how" making the distinction between the two "otiose"" (1956, p. 112). His reason stems from using the verb "to know" in a dispositional way (Hartland-Swann, 1956, p. 112). To further explain his point, Hartland-Swann draws on the following quotation from Ryle explaining some of the similarities and differences between know-how and know-that:

> Attention has been drawn to certain parallelisms and certain non-parallelisms between the concept of knowing that and the concept of knowing how. A further non-parallelism must now be noticed. We never speak of a person having partial knowledge of a fact or truth, save in the special sense of his having knowledge of a part of a body of facts or truths. A boy can be said to have partial knowledge of the counties of England, if he knows some of them and does not know others. But he could not be said to have incomplete knowledge of Sussex being an English county. Either he knows this fact or he does not know it. On the other hand, it is proper and normal to speak of a person knowing in part how to do something, i.e. of his having a particular capacity in a limited degree. (1940, p. 59)

Hartland-Swann, however, argues that Ryle's Sussex example actually undermines the distinction between know-how and know-that: the sentence "Either he knows this fact or he does not know it" must be translated as "Either he is able (knows how) to give the correct answer...or he is not able (does not know how) to do so" (Hartland-Swann, 1956, p. 113).

Similarly, the central feature of knowing French is the ability to apply the word 'couteau' correctly (1956, p. 113). This means that although you may understand the proposition that the French word for 'knife' is 'couteau' in order to say that you know French, you must be able to apply this knowledge. Therefore, knowing French is a matter of know-how, i.e., knowing how and when to use propositional knowledge. Put this way, Hartland-Swann uses Ryle's regress argument as support for the claim that matters of know-that principally involves the ability to apply propositions correctly. This means that matters of know-that always reduce to matters of know-how.

To further clarify Hartland-Swann's position, which will also help the transition into the argument that Dreyfus is a Radical Anti-Intellectualist regarding expertise, I appeal to Jane Rowland's (1958) explanation of his argument. First, she explains that both Ryle and Hartland-Swann consider all cases of know-how as "knowing how to perform a task" and all know-that as "knowing that such and such is the case" (Rowland, 1958, p. 380). However, since Ryle considers "to know" a capacity, or dispositional, verb, Hartland-Swann argues that know-that reduces to know-how, as even cases of know-that involve "knowing how to perform a task". The task in these cases, however, involves demonstrating "knowing that such as and such is the case". As Roland (1958) explains,

> If I understand him [Hartland-Swann] correctly, what he means is that if we call the statement "Johnny knows that Columbus discovered America" dispositional, then it must be translatable into some such form as "Johnny knows how to answer the question 'Who discovered America?' or 'What did Columbus discover?' correctly." The only alternative to this inclusion of "knowing that" in the "knowing how" category, Hartland-Swann feels, would be to give up the dispositional analysis of "know". (p. 381)

In other words, the crux of Hartland-Swann's argument is that even applying know-that is, itself, an activity. Since all activities are cases of know-how, then the activity of correctly applying propositional knowledge is, itself, a case of know-how.

Now that I have explained these various positions on know-how and know-that, I will now apply these positions to the debate about expertise to relate this material back to Dreyfus' account. For instance, those who argue that expertise is a matter of know-that would be considered Intellectualists, those who say expertise involves both know-how and know-that are

Moderate Anti-Intellectualists and those who say that expertise is a matter of know-how are the

Radical Anti-Intellectualists. From these accounts, I conclude this chapter by giving a brief

argument that Dreyfus is a Radical Intellectualist regarding expertise.

Dreyfus and Radical Anti-Intellectualism

I break my argument that Dreyfus is a Radical Anti-Intellectualist regarding the debate

about expertise into several parts. The first deals with a specific quote from Dreyfus clarifying

his position to a number of critics. The second shows how Dreyfus' position on expertise is

closely related to Hartland-Swann's argument against Ryle's Moderate Anti-Intellectualism. The

third shows that several critics also perceive Dreyfus to be a Radical Anti-Intellectualist.

Expertise as Transition

In addressing some of his critics, Dreyfus addresses those who take it that he argues that

mental representations are not needed for any form of intelligent behaviour. As he says,

> I thought I had made it clear that I was not opposing the current
>
> representationalist account of learning, planning, and deliberate action where a
>
> representation is understood as a decomposable mental structure with
>
> propositional intentional content on the basis of which one can make hypotheses,
>
> form plans and solve problems….Indeed, my point in introducing the first four
>
> levels of skill acquisition was to make a place for mental representations and then

to argue that, when we finally become expert, our everyday way of dealing with things and people switches over from the planning and goal directedness of the first four stages to what is normally experienced as a spontaneous response to the demands of the whole situation. (Dreyfus, 2002b, p. 413)

Although this passage suggests that Dreyfus is a Moderate Anti-Intellectualist regarding the general debate about know-how and know-that (as he appears to accept that know-that and know-how are distinct), Dreyfus claims that expertise is primarily a matter of know-how. Here I draw the reader's attention to Dreyfus' emphasis on the "switch" from matters of know-that to know-how in gaining expertise. Emphasising the importance of the switch here is crucial for the argument that he is a Radical Anti-Intellectualist in the debate about expertise. Granted mental representations may be important for the earlier stages of learning a skill, but expertise, according to Dreyfus, occurs when we adopt a more intuitive, skillful coping response. Therefore, expertise, according to Dreyfus, would be a matter of know-how, not know-that.

Dan Hutto and Raúl Sánchez-García (2014) also emphasise the importance of this 'switch' in describing Dreyfus' position:

> …the Dreyfusian conception of the embodied basis of expertise sets its face firmly against representational theories of mind. It regards the process of acquiring expertise as involving not only a transition from the explicit to the implicit but also, crucially, as involving a transformation of our modes of dealing with the relevant domain: a switch from representational to fully non-representational, purely embodied and enactive modes of engagement.

Claiming that expertise is a matter of 'switching', 'transitioning', or 'transforming' from propositional ways of thinking to intuitive, non-propositional ways of thinking is strong evidence

for the claim that, for Dreyfus, expertise is a matter of know-how, not know-that, making Dreyfus a Radical Anti-Intellectualist regarding expertise.

Dreyfus and Hartland-Swann

Secondly, Dreyfus' position on expertise closely resembles, but is not identical to, Hartland-Swann's argument that matters of know-that reduce to know-how[38]. For example, Dreyfus is clear that matters of know-how apply to a wide variety of skills, not just to cases such as riding a bike. As I mentioned at the beginning of my exposition of Dreyfus' account, he does not restrict his account of expertise to a specific kind of activity. For example, he does not say that his position only applies to driving cars and walking upstairs. Rather, his account applies to "airplane pilots, chess players, automobile drivers, and adult learners of a second language" (Dreyfus & Dreyfus, 1986, p. 20). As Dreyfus says in more detail:

> The issue [know-how], of course, is not confined to riding a bike. All of us know how to do innumerable things that, like bike riding, cannot be reduced to "knowing that". You know how to carry on a conversation, and how to do so appropriately in a wide variety of contexts with your family, your friends, in the office, at a party, and with a stranger. Not only do you know what sorts of things to say in various social settings, but how far to stand from your conversational partner and what tone of voice to use. (Dreyfus & Dreyfus, 1986, p. 16)

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[38] I say Dreyfus' position is not identical to Hartland-Swann's as Dreyfus can accept that know-that and know-how are distinct (hence he is not a Radical Anti- Intellectualist regarding the general debate), but Dreyfus does think that expertise is a matter of know-how, not know-that (hence Dreyfus is a Radical Anti-Intellectualist regarding the specific debate about expertise).

This passage demonstrates the link between Hartland-Swann and Dreyfus. Like Hartland-Swann's claim that although knowing French involves propositions (e.g., the French word for knife is 'couteau' and boy is 'garcon'), knowing French is a matter of know-how, Dreyfus claims that conversational expertise is a matter of know-how – despite the fact that the skill *involves* propositions, expertise in the skill is a matter of how one *applies* the propositions . Propositions, in this case, are the objects of one's know-how in the way that the bicycle is the object of one's knowing how to drive a bicycle. Conversational expertise is in how one uses the objects (propositions) in question. To consider this point further, I will now present Dreyfus' discussion of chess expertise.

Although my discussion of Dreyfus' account of expertise focused the example of driving, Dreyfus also uses chess as an example of his account. Like the driver, the novice chess player begins with rules. For example, the novice chess player is taught the numerical value of each piece and told the rule: "Always exchange if the total value of pieces captured exceeds the value of pieces lost" (Dreyfus, 2002a, p. 368). After time, the chess player can begin to recognise situational aspects of the game and form maxims such as, "Attack a weakened king's side" (2002a, p. 369). A competent chess player,

> may decide after studying a position that her opponent has weakened his king's
> defenses so that an attack against the king is a viable goal. If she chooses to
> attack, she can ignore features involving weaknesses in her own position created
> by the attack as well as the loss of pieces not essential to the attack. Pieces
> defending the enemy king become salient. Successful plans induce euphoria,
> while mistakes are felt in the pit of the stomach. (Dreyfus, 2002a, p. 370)

The proficient chess player, like the proficient driver, can recognise what should be done in a given situation, but must deliberate about what to do in order to bring about the recognised goal. "She may, for example, know that she should attack, but she must calculate how best to do so" (Dreyfus, 2002a, p. 371). Finally, according to Dreyfus, the expert chess player can react intuitively to the situation, saying, "Excellent chess players can play at the rate of 5 to 10 seconds a move and even faster without any serious degradation in performance" (Dreyfus, 2002a, p. 372). Emphasising speed as an indicator of intuition, a chess player making moves at that speed does not have time and "must depend almost entirely on intuition and hardly at all on analysis and comparison of alternatives" (Dreyfus, 2002a, p. 372).

The connection between Dreyfus and Hartland-Swann is made clearer in Dreyfus' distinction between calculative and deliberative rationality. Just as Hartland-Swann addressed the objection that knowing French involves know-that, Dreyfus addresses the objection that some activities necessarily involves deliberation: if experts deliberate, then does this not refute the claim that experts' actions are intuitive? Dreyfus' response is to make a distinction between calculative and deliberative rationality. According to Dreyfus and Dreyfus, whereas calculative rationality refers to the "inferential reasoning exhibited by the novice, advanced beginner and competent performer as they apply and improve their theories and rules" (2005, p. 789), deliberative rationality rests on intuitive thought. As they say,

> Deliberative rationality is detached, reasoned observation of one's intuitive, practice-based behavior with an eye to challenging, and perhaps improving, intuition without replacing it by the purely theory-based action of the novice, advanced beginner or competent performer. (Dreyfus & Dreyfus, 2005, p. 789)

For example, Dreyfus and Dreyfus claim that chess masters utilise deliberative rationality when they have time to do so. "A master player never calculates the best strategy being pursued by a formula applied to decontextualised features of a position, as a merely competent player might, rather, he always experiences his position as raising issues prior experience causes him to see as important" (Dreyfus & Dreyfus, 1986, p. 37). Furthermore, Dreyfus and Dreyfus say calculative rationality is a matter of know-that and if an expert were to utilise this form, then one is likely to "regress" to earlier stages (most likely the competent stage) (Dreyfus & Dreyfus, 1986, p. 36). In their words, "Chances are the sudden reflection upon what you were doing and the rules for doing it was accompanied by severe degradation of performance…Here you fell victim to "knowing that" as it interrupted and replaced your "knowing how" (Dreyfus & Dreyfus, 1986, p. 17). Therefore, Dreyfus is a Radical Anti-Intellectualist.

Dreyfus' Critics

Lastly, consider two sets of Dreyfus' critics: Selinger and Crease (2001) and Montero and Evans (2011). In order to undermine Dreyfus' position, Selinger and Crease (2001) argue for an 'expert in x', whose expertise is definitively propositional[39]. As they understand it, Dreyfus only considers those who possess know-how as experts. This means that they, too, see Dreyfus as a Radical Anti-Intellectualist regarding expertise, and, in order to refute him, they need to show that there exists an expert whose expertise is a matter of know-that, thereby maintaining the distinction between know-how and know-that, which makes them Moderate Anti-Intellectualists

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[39] Although I discuss the ambiguity surrounding the meaning of 'definitively propositional' in this context, I take them to mean the expertise of an 'expert in x' is a matter of know-that. In other words, the source of the expertise is propositional in nature.

regarding expertise. Moreover, like Selinger and Crease (2002), Montero and Evans (2011) take issue with Dreyfus' arational account of expertise. Although they grant that Dreyfus' account of expertise may apply to some skills, they argue he is wrong to think chess involves arational, skillful coping. Their argument demonstrates that they are Moderate Anti-Intellectualists objecting to Dreyfus' Radical claim that even playing chess is a matter of know-how. Again, this lends further evidence to claim that Dreyfus is a Radical Anti-Intellectualist regarding expertise.

Conclusion

In summary, this chapter outlined Dreyfus' account of expertise by first tracing its origins to the debate about artificial intelligence, followed by describing the five stages involved in adult expertise, and then discussing how central concepts in traditional phenomenology (e.g., intentional arc, maximal grip, and time-consciousness) support Dreyfus' argument. The second half of the chapter linked Dreyfus' position to Ryle's distinction between know-how and know-that. From there, I used the differences between Intellectualists, Moderate Anti-Intellectualists, and Radical Anti-Intellectualists on know-how/know-that in order to argue these positions can aid in the debate about expertise. Specifically, I argued that Dreyfus is a Radical Anti-Intellectualist. After making the case that Dreyfus is a Radical Anti-Intellectualist regarding expertise, the next chapter defends Dreyfus' Radical account from arguments made by Selinger and Crease (2002) and Montero and Evans (2011).

Chapter 5: Defending Dreyfus

Chapter 4 presented Hubert Dreyfus' account of expertise, which argues that expertise is best characterised by intuitive response, exemplified by the quote, "What must be done, simply is done" (Dreyfus, 2002a, p. 372). To support his position, I also presented Dreyfus' appeal to Merleau-Ponty's concepts of the intentional arc and maximal grip. For example, referring to maximal grip, Dreyfus argues that whereas a beginner in tennis would have to reflect on where to grab the tennis racket and the angle at which to place his arm in order to return the serve, the expert's arm, after much experience, simply moves to the right position. In cases like these, "[Intentional action] can be *purposive* without the agent entertaining a *purpose*" (Dreyfus, 2002a, p. 379). Moreover, after expanding on the temporal element of maximal grip by reviewing Husserl's account of time-consciousness, I linked Dreyfus' position to Gilbert Ryle's distinction between know-how and know-that. I then described three various positions within the debate about the distinction between know-how and know-that in order to make the more specific case that, regarding expertise, Dreyfus is a Radical Anti-Intellectualist, as he would argue expertise is definitively a matter of know-how.

In making the argument that Dreyfus was a Radical Anti-Intellectualist regarding expertise, I discussed two sets of critics who object to Dreyfus' Radical account: Evan Selinger and Robert Crease (2002) and Barbara Montero and C. D. A. Evans (2011). Briefly stated, Selinger and Crease (2002) argue that Dreyfus wrongfully denies expertise to those whose expertise is definitively propositional, i.e., 'experts in x'. In particular, they say Dreyfus would equate an 'expert in x' with a commentator, someone who lacks the "bodily commitment a genuine 'expert x' possesses" (Selinger & Crease, 2002, p. 279). Montero and Evans (2011)

argument complements Selinger and Crease, as they argue that some expertise in chess is 'rational through and through', meaning chess experts can articulate and justify their actions retrospectively and in action, as their perception is conceptual. Like Selinger and Crease (2002), Montero and Evans (2011) argue that some expertise is a matter of know-how and others are a matter of know-that, making them Moderate Anti-Intellectualists. The aim of this chapter, then, is to defend Dreyfus' Radical account against these philosophers by undermining their attempts at making a distinction between expertise as a matter of know-how and expertise as a matter of know-that.

Although I start the exposition of these critiques with Selinger and Crease (2002), I begin my defence by undermining Montero and Evans' (2011) conceptual account of perception by drawing on several arguments in favour of nonconceptual perception. I then turn my attention back to Selinger and Crease and show that their distinction between an 'expert in x' and an 'expert x' cannot be maintained, in the same way Hartland-Swann argued that Ryle's distinction between know-how and know-that, as discussed in Chapter 4, cannot be maintained.

Selinger and Crease

Selinger and Crease (2002) split their arguments against Dreyfus' Radical Anti-Intellectualist account of expertise into two parts. On one hand, Dreyfus counts some as experts who should not be. On the other hand, he discounts some as experts who should be.

Those who should not be experts

Selinger and Crease's first argument is that Dreyfus' account will regard some as experts who should not be. Pointing to how we use the word 'expert' in everyday discourse, they claim that experts are, "those who undergo special training, give professional advice, etc." (Selinger & Crease 2002, p. 258). Since few people go through specific, professional training to walk, Selinger and Crease object to the notion of an expert walker; they say the same of Dreyfus' expert driver. They also state that they reject "licensed" drivers, "driving enthusiasts", and "competitive amateurs" as experts (Selinger & Crease 2002, p. 258). The only drivers that they consider 'experts' are those who "belong to professional driving organizations, participate in certain kinds of competitions, and so forth" (Selinger & Crease 2002, p. 258).

This is their weakest argument as it might just boil down to a terminological dispute where they do not like Dreyfus' use of the term 'expert' in the contexts mentioned previously. However, they do not offer a good reason why we should not consider Dreyfus' walkers and drivers as experts apart from the appeal to everyday use. Since Dreyfus uses the term 'expert' in a technical sense, this objection seems to miss its target. For instance, they say that we reserve the term 'expert' for those "who belong to professional driving organizations" (Selinger & Crease, 2002, p. 258). Therefore, we can dissolve the problem by making it clear that by 'experts' we mean those who respond intuitively in a given situation (which would include, among other things, expert walkers, talkers, and drivers) and by 'professional' we mean those with special training and so on. This would mean that although I might not be a 'professional' driver, I do consider myself an 'expert' driver in Dreyfus' sense of the term.

Selinger and Crease's second argument, which is their strongest, is that Dreyfus' account excludes people who should be considered experts. In making this argument, they introduce the distinction between 'expert x' and 'expert in x'.

Those who should be experts

Using Ryle's distinction between know-how and know-that, Selinger and Crease claim that a farmer is an 'expert x', whose expertise corresponds to know-how, whereas the Secretary of Agriculture is an 'expert in x', whose expertise corresponds to know-that (2002, p. 258). They also claim that Dreyfus only considers 'expert x' an expert, as "Dreyfus denies that the propositional knowledge definitive of an 'expert in x' is expert knowledge" (Selinger & Crease, 2002, p. 258). Selinger and Crease provide two (not mutually exclusive) reasons why they think Dreyfus would reject the notion of an 'expert in x'. The first is that Dreyfus would associate an 'expert in x' with a commentator (Selinger & Crease, 2002, p. 259). Building on the first, the second reason is that an 'expert in x' lacks the "bodily commitment a genuine 'expert x' possesses" (Selinger & Crease, 2002, p. 259). However, they argue that an 'expert in x' still possesses expertise, as, "An expert "in farming" could effectively communicate, coordinate, and synthesize accurate propositional information about farming –could become Secretary of Agriculture – even if terrified of plows and tractors" (Selinger & Crease, 2002, p. 258). Moreover, "An 'expert in sports,' who correlates the past behavior of athletes to current situations, could be crippled and lack physical capacity to play the sport; an 'expert in music' could be a terrible musician" (Selinger & Crease, 2002, p. 258). Therefore, an 'expert in x' undermines Dreyfus' account of expertise, as there are experts whose expertise is definitively propositional[40].

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[40] Although Selinger and Crease do not explicitly state what they mean by 'definitively propositional' in this case, I take it to mean at least two things: 1) that the knowledge of 'an expert in x' is a matter of know-that or 2) that the an

Now that I have explained Selinger and Crease's (2002) critique of Dreyfus, I will now explain Montero and Evans' (2011) to round out the exposition section of this chapter. Like Selinger and Crease (2002), Montero and Evans (2011) also disagree with Dreyfus' Radical Anti-Intellectualist position as it applies to chess, arguing that chess expertise is "rational through and through" (2011, p. 178).

Montero and Evans

Montero and Evans (2011) begin their argument against Dreyfus by conceding that his account of expertise might be correct when describing everyday activities (e.g., walking up stairs), as they claim these actions are 'arational' (neither "rational" nor "irrational") (2011, p. 176)[41]. As discussed in chapters 3 and 4, prereflective action denotes acts that are neither done from explicit reflection nor from non-intentional action (e.g., knee-jerk reactions). For instance, Montero and Evans provide an example of arational action that is consistent with the kind of prereflective action described in earlier chapters.

> Ask yourself, for example, why you lift your feet approximately 1.3 in above each stair as you climb? Although there is a reason for doing this—much less might lead to bumping into the step and much more might lead to fatigue—this reason is not in your mind guiding your behavior as you ascend a staircase. You don't need to think about it; you just do it. Indeed, you climb stairs, according to Dreyfus, without your mind guiding your actions at all. (Montero & Evans, 2011, p. 176)

'an expert in x' necessarily uses propositional knowledge. As I will argue, only the first interpretation acts as a counter to Dreyfus' position, as the second can be accommodated by Dreyfus.

[41] Arational action, then, is essentially interchangeable with prereflective action

However, Montero and Evans (2011) disagree that Dreyfus' theory applies to chess. Specifically, Montero and Evans (2011) argue that chess is "rational through and through" (2011, p. 178). As they explain their argument in more detail,

> We shall argue, however, that chess intuition is rational and explicitly so: players can and do describe and specify reasons for the moves they made...we take expert chess players' ability to both retrospectively and in action provide reasons for their moves combined with their incredible ability to remember past games to indicate that expert chess is rational through and through. (Montero & Evans, 2011, p. 178)

Montero and Evans target Dreyfus' "subtle" claim that chess intuition is 'arational'. By this they mean Dreyfus does not outright deny that deliberation plays a role in playing chess; rather, Dreyfus argues that such deliberation is "predicated on actions that do not involve deliberation" (Montero & Evans, 2011, p. 188). In other words, such deliberation "occurs over a background of involved coping" (Montero & Evans, 2011, p. 177). Here Montero and Evans refer to Dreyfus' distinction between calculative and deliberative rationality, but they also use the example of Dreyfus' account of 'zeroing in to further explain their point. 'Zeroing in' refers to the way experts are able to locate the important features and ignore unimportant features of a specific task. As they say,

> In chess computing this kind of strategic analysis is called "pruning." Dreyfus calls it "zeroing in," and this term is more to the point since pruning implies cutting branches one by one, while zeroing in implies simply focusing on a few moves, which is a better description of what humans do. (Montero & Evans, 2011, p. 188)

As Dreyfus explains, 'zeroing in' is arational, as it cannot be captured by determinate facts. As he says in more detail

> The human world, then, is prestructured in terms of human purposes and concerns in such a way that what counts as an object or is significant about an object already is a function of, or embodies, that concern. This cannot be matched by a computer, for a computer can only deal with already determinate objects, and in trying to simulate this field of concern, the programmer can only assign to the already determinate facts further determinate facts called values, which only complicates the retrieval problem for the machine. (Dreyfus, 1972, p. 173)

Montero and Evans start their critique by explaining that rationality, for Dreyfus, implies conceptualisation and that experts do not conceptualise what they are doing (2011, p. 191). To counter this, Montero and Evans provide several examples illustrating conceptualisation while playing chess. For example, seeing the board as isolani involves conceptualising the board as an isolani (Montero & Evans, 2011, p. 191). Furthermore, Montero and Evans appeal to the example of Bobby Fischer's ability to walk by a game of chess and immediately see the best move. Unlike Dreyfus who would claim that Fischer's ability was due to his "arational intuition", Montero and Evans claim Fischer's ability was a "rational process" (2011, p. 191). They also liken this experience to "seeing a familiar flaw in a philosophical argument and being able, right away, to say what is wrong with it" (Montero & Evans 2011, p. 191). They claim both cases exemplify rationality, as

> you can articulate them (for example, "in his argument for dualism, I instantly saw that he was using a mistaken definition" or "I saw that the position was a Dragon Sicilian Yugoslav Attack, and so I instantly saw that sacrificing on the h-

file would lead to checkmate, as it inevitably does in those kinds of positions")

and they provide justification for your actions. (Montero & Evans, 2011, p. 191)

To further support their argument, Montero and Evans (2011) take human perception, in general, to be conceptual in nature. For instance, John McDowell (1994) argues that human perception is conceptual to distinguish humans from nonhumans, e.g., when a human reaches to catch a frisbee, she realises a practical concept: "catch this"; a dog, however, does not. Montero and Evans take chess to work in a similar way. Specifically, they draw on McDowell's claim that, "intuitions without concepts are blind," and "similarly. . . movements of limbs without concepts are mere happenings" (McDowell, 1994, p. 89).

If we were to use Ryle's distinction between know-how and know-that to understand their argument, Montero and Evans (2011) would argue that whereas Dreyfus would regard chess expertise as a matter of know-how, they argue it is a matter of know-that, as expert chess players can articulate and justify their reasons retrospectively and in action. Put this way, we can see that Montero and Evans would likely agree with Selinger and Crease's distinction between an 'expert x' and an 'expert in x', and argue that a chess player is an 'expert in x', as their expertise is definitively propositional.

I should also stress that given Montero and Evans' (2011) critique of Dreyfus, it appears as though they adopt the most demanding account of concepts, which claims that the thinker must "justify and defend the judgment" that something is X in order to demonstrate that the thinker possesses concept X (Bermúdez & Cahen, 2012). I take it that Montero and Evans (2011) advance this demanding view, as they say chess expertise is "rational through and through" whereby chess experts are able to articulate and justify their actions retrospectively and in action. Furthermore, they discredit the efficacy of Dreyfus' account of expertise to chess by likening it

to luck or chance. For instance, Montero and Evans (2011) make the strong claim that if Dreyfus' skillful coping could lead to successful moves while playing chess, such actions are "like catching the crucial bus that gets you to work on time. Occasionally, you get lucky: you leave the house, checking neither the time nor the schedule, yet arrive at the stop right before the bus pulls up" (Montero & Evans, 2011, p. 177). Using McDowell's terms, Montero and Evans (2011) take Dreyfus' account to be "mere happenings", stating that "Perhaps, occasionally, a great chess move in an important game is made after only an arational intuitive insight. However, in neither case should this be the preferred approach (p. 177).

After having explained the arguments against Dreyfus' Radical account, I am now in a position to address them. Starting with Montero and Evans' (2011), I argue that they do not sufficiently deal with arguments for nonconceptual perception. In the next section, I list several nonconceptual accounts to counter Montero and Evans' argument, starting with Fernand Gobet (2012), as he has explicitly taken issue with Montero and Evans' conceptual account of perception.

Gobet

Fernand Gobet (2012) centres his response to Montero and Evans on their use of the Dragon Sicilian Yugoslav Attack example. Whereas Montero and Evans use this example to illustrate their point that intuition is rational through and through, Gobet says the example "beautifully illustrates the idea that perception, and hence intuition, precedes conceptualization" (2012, p. 245). In other words, whereas Montero and Evans use the example to support a conceptual account of perception, Gobet uses it to support a nonconceptual account. As Gobet notes, Montero and Evans explicitly state that the participant "saw" the move first and then

articulated it, which he takes to indicate "an immediate and perceptual act" (2012, p. 245).

Gobet's position, here, reinforces Dreyfus' argument that intuition is arational (2011, p. 245)[42].

In the following section, I break my discussion of Gobet's argument into the following three, interrelated elements:

- The importance of context

- Learning without concepts

- The 'uselessness' of certain concepts[43]

First, Gobet emphasises the role of context while developing expertise in chess. For example, although Montero and Evans claim that the chess expert can immediately perceive that sacrificing on the h-file would lead to checkmate, Gobet points out that this will not always happen, as "sacrificing on the h-file sometimes works, and sometimes does not" (2012, p. 245). The key to expertise in chess, then, is knowing when sacrificing on the h-file will work. As Gobet says, sometimes the reason could be verbalisable, e.g., "the black king can escape" (2012, p. 245), or the reason could be because of a hunch or "gut feeling" (2012, p. 245), which are not rational in the sense that Montero and Evans (2011) use the term.

Secondly, Gobet claims that we often learn aspects of a skill that are never verbalised. To clarify, Gobet discusses "perceptual chunks" (2012 p. 245). Through practice and understanding of the game, expert chess players learn "perceptual "chunks" of information, which are "likely to encode patterns of pieces on the board" (Gobet, 2012, p. 245). Then, possible actions are attached to these chunks, e.g., "the bishop should be moved to a specific square" or "white

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[42] Although Gobet does not fully agree with Dreyfus' position (for instance he says that Dreyfus' treatment of attention is 'ambiguous' (2011, p. 239)), he does agree with Dreyfus that intuition is arational, especially in areas that are "visuospatial in nature or where emotions affect decision making", i.e., "probably most domains" (Gobet, 2011, p. 245).

[43] It should be stressed that 'useless' in this context means 'unhelpful'.

should try to counter-attack in the center" (2012, p. 245). The crux, according to Gobet, is that if these chunks are never verbalised, then it is unlikely these actions are rational, according to Montero and Evans, as we are not able to articulate and justify our actions. As Gobet says,

> The fact that chess is a visuospatial game makes the presence of automatic pattern recognition, without any recourse to language, even more plausible. Thus, while there is no doubt that some of the experts' actions are determined by the large number of heuristics they know, others are determined by subtle perceptual differences that are not encoded declaratively. (2012, pp. 245- 246)

If there are important aspects of learning the skill that are never verbalised and never conscious, then there will be crucial aspects of playing chess that a player cannot provide reasons for, either retrospectively or in action.Therefore, this point undermines Montero and Evans' claim that expert chess players' actions are rational through and through.

Thirdly, Gobet argues that the results of verbalising these perceptual chunks are useless (2012, p. 246). As he says in more detail,

> While some positions clearly can be conceptualized (e.g., a "Dragon Sicilian Yugoslav Attack with opposite castles," to use our old friend), and while some can even be fully recognized as part of a known game, other positions simply cannot be coded that easily. And even when they elicit a concept, this concept sometimes characterizes the position so poorly that it becomes essentially useless. (Gobet, 2012, p. 246)

For example, take the following ubiquitous form of coaching advice: "Keep your eye on the ball". Although one often hears this piece of 'advice' shouted in every sport involving a ball, it is relatively useless. If a coach shouts "Keep your eye on the ball", the coach does not,

presumably, *only* want the person to look at the ball. Perhaps the assumption is that by focusing on the ball, the person will align a number of salient factors to successfully hit the ball. However, without explicitly stating these salient factors, "Keep your eye on the ball" is a relatively unhelpful piece of advice.

Another example more closely related to chess is the example of how I learned to play backgammon discussed in Chapter 4. As I stated, my wife and mother-in-law began by teaching me certain "rules" that I should follow if I rolled a specific combination of dice, e.g., if I rolled a six and a one, then I should do X; if I rolled a five and a three, then I should do Y. However, there were situations when I would apply these rules to my disadvantage, e.g., my opponents' pieces were aligned in such a way that they prevented me from implementing the new rule I had learned and I was forced to make an alternative move, which left me vulnerable. Therefore, these initial rules were relatively unhelpful, as there were many situations in which following this rule would actually be disadvantageous.

Gobet's last point further undermines Montero and Evans' claim that expert chess players are able to provide reasons for their actions "both retrospectively and in action" (Montero & Evans, 2011, p. 178). If attempting to verbalise these aspects results in useless/unhelpful statements, then the reasons chess players provide do not provide an adequate account of their expertise.

To strengthen Gobet's arguments further, I will appeal to several arguments in favour of a nonconceptual account of perception.

Nonconceptual Accounts of Perception

In the following, I present three arguments for a nonconceptual account of perception that correspond to the three aspects of Gobet's argument I highlighted earlier used to counter Montero and Evans' (2011) demanding account of concepts. For instance, Sean Kelly (2001) argues that since perception is situation dependent and concepts are situation independent, perception is nonconceptual. Kelly's argument, then, complements Gobet's argument for the importance of context. Secondly, Dan Hutto and Raúl Sánchez-García (2014) describe various forms of learning without the use of concepts, which corresponds to Gobet's point that some important aspects of learning a skill are never verbalised or conscious. Finally, Christopher Gauker (2011) argues that conceptualists are unable to provide the necessary vocabulary to describe the conceptual contents of perception, as the attempts are either too vague or too specific. Therefore, Gauker's arguments complement Gobet's point that attempts to verbalise aspects of expertise are often useless. I begin with Kelly's (2001) argument.

Context

Kelly's (2001) argument for a non-conceptual account of perception stems from an exchange between Christopher Peacocke (1998) and John McDowell (1994) on whether or not demonstrative concepts are evidence for a non-conceptual account of perception. As Kelly summarises, in arguing against a non-conceptual account of perception, McDowell argues that we can demonstratively single out concepts in cases when we are unable to articulate them (2001, p. 602). For example, although I might not be able to articulate the name of a specific colour, I am able to consistently single it out by pointing to it every time, e.g., <that shade>. Peacocke's response is that demonstrative concepts (such as <that shade>) "slice too finely"

(1998, p. 382). Peacocke argues that there are three levels of describing the perception of the object (1998, p. 381):

i.   There is the particular shape itself.

ii. There is the way that shape is given in experience. One and the same shape may be perceived as square, or as diamond-shaped. In this particular example, the difference between these ways is a matter of which symmetries of the shape are perceived; though of course the subject himself does not need to know that this is the nature of the difference.

iii. There are demonstrative concepts which, for those perceivers who are conceptually-equipped to employ the general concepts they contain, are made available by the shape's being given in a particular way in perception, and which are used in judgements. These are demonstrative concepts expressible in context by (for instance) "that diamond", or "that shape", or "that pointed figure"

Peacocke claims that whereas the nonconceptualist will argue that level (ii) and (iii) are distinct, the conceptualist will not. Specifically, he argues that demonstrative concepts fail to capture the second level, as they "slice too finely" (Peacocke, 1998, p. 382). For example, Peacocke claims that although "that shade", "that red", "that scarlet" are all different conceptual concepts, he finds implausible that "one of these, and not the others, features in the representational content of the experience of a shade of red" (1998, p. 382).

Kelly, although sympathetic to Peacocke's nonconceptual account of perception, disagrees with the claim that demonstrative concepts are too "fine-grained". On the contrary, Kelly argues for a nonconceptual account of perception, as demonstrative concepts are too

"coarse-grained" (2001, p. 608). Kelly's argument emphasises the following two features of perceptual experience (Kelly, 2001, p. 601):

- the dependence of a perceived object on the perceptual context in which it is perceived.

- the dependence of a perceived property on the object it is perceived to be a property of.

As an example of the first feature of perceptual experience, Kelly uses the phenomenon of colour constancy – the phenomenon of recognising something as the same colour in different lighting conditions which changes the way you experience the colour (Kelly, 2001, p. 606). For instance, Kelly states that he sees that his entire office wall is the same white, despite his experience that the well-lit section is different than the poorly lit section (Kelly, 2001, p. 606). Kelly argues that this demonstrates how the context of our perception undermines the conceptual account of perception. As he states,

> Without a reference to the context we won't have the resources necessary to explain the change in experience that occurs when the lighting context is varied. If it is right, as all perceptual psychologists agree, that this change is not a change in color (hence the name "color constancy"), then no color concept, not even a demonstrative one, could completely describe the content of a color experience. (Kelly, 2001, p. 607)

Therefore, Kelly argues that the phenomenon of colour constancy supports a nonconceptual account.

The second feature of experience Kelly lists, the dependency of a perceived property on the object it is perceived to be a property of, further illustrates the importance of context. As he states, "The basic idea is that when I perceive a property like height or color, what I see is not some independently determinable property that any other object could share; rather what I see is

a dependent aspect of the object I'm seeing now" (Kelly, 2001, p. 607). Kelly then references

Merleau-Ponty's example that "the blue of the carpet would not be the same blue were it not a

woolly blue" (2001, p. 607). As Kelly explains, the difference between a blue carpet and a blue

ball is not due to a difference in colour. Rather, as Kelly, says, the difference "is due to a

difference in the object seen to manifest that color" (2001, p. 608). As he explains further,

> The dependency of the perceived property on the object is so complete that even
>
> if I see the color of the carpet to be the same as the color of some other object - a
>
> shiny steel ball, for instance - I can always rationally wonder whether they are in
>
> fact the same color. (Kelly, 2001, p. 608)

Kelly concludes that the emphasis on situation dependence of perception supports the

claim that perception is nonconceptual. The argument can be formulated as this: Concepts,

according to Kelly, "pick out situation independent features" (2001, p. 608). However, if a

perceived colour cannot be described independently of its object, "then it must be false that

[one's] perception of color is explicable in terms of resemblance to an objective measure" (2001,

p. 608). Therefore, according to Kelly, perception is nonconceptual as perception is situation

dependent, "and situations aren't specifiable in conceptual terms" (2001, p. 608). Kelly's (2001)

argument, then, adds further support to Gobet's claim that Montero and Evans (2011) fail to take

into account the importance of context.

Next, I present Dan Hutto and Raúl Sánchez-García's (2014) account of embodied

expertise and explanation of choking from a radical enactivist position, a position that

completely opposes representational theories of cognition. Although they are initially critical of

Dreyfus' position, I will show how their criticism does not undermine the central message of

Dreyfus' position and supports Gobet's point that we often learn aspects of skills that are not verbalised.

Learning without Concepts

Hutto and Sánchez-García (2014) begin their argument with the claim that Dreyfus' account is "the most popular philosophical model for understanding what happens when we choke" (Hutto and Sánchez-García, 2014). According to Dreyfus, although an expert is someone who responds to the situation, we often choke in a particular situation when we reflect on how we respond to the situation. To illustrate this point, consider the following personal example.

While explaining the concept of prereflective consciousness in a lecture, one student was having difficulty fully grasping the concept. To help the student, I asked if he had ever played 'catch' as a child, which he affirmed. As soon as he answered my question, I said "heads up" and lightly tossed the dry erase marker that I was using during the lecture to him. When he caught the marker, I immediately asked him what mental representation he had when he caught it. He could not respond as he was unsure of the specific movements required to catch the marker. To be precise, his exact words were "Ughhhh.... I don't know". So I said that I was going to throw the marker to him a second time and I wanted him to reflect on how he is able to catch the marker while catching it. While looking a bit overwhelmed at the amount of information he had to take into account, I tossed the marker the second time and he fumbled it; in other words, he choked. Dreyfus would say that the student successfully caught the marker when he simply responded to the situation, and choked when he reflected on his action.

Although Hutto and Sánchez-García (2014) agree with much of Dreyfus' account, they are critical of Dreyfus' description of the initial stages of expertise, which they summarise as:

- First, break the technique down into a sequence of ideal actions and rules.

- Then, learners should progressively master each of these actions piecemeal and gradually concatenate them into a smooth overall performance.

- Little by little, the explicit rule fades into implicit, automatic absorbed coping.

Specifically, they argue that the beginning stages are "overly intellectualist" in nature. In fact, they claim that the 'explicit learning model' described in the first few stages of Dreyfus' account may lead to more occurrences of choking. For example, if I learn a skill by starting with explicit rules and representations, I may be tempted to fall back on these rules and representations as an expert; thereby unintentionally causing me to choke. To address this concern, Hutto and Sánchez-García present an account of skill acquisition from a non-linear pedagogy, which, they argue, reduces the likelihood of choking. If we think that choking is caused by reflecting on previous rules and representations, then progressing in a skill through adaptability in a nonlinear way avoids many of the temptations to fall back on static rules and representations.

Hutto and Sánchez-García (2014) base much of the argument on a Radically Enactive account of cognition; as they explain,

> A Radically Enactive, Embodied account of Cognition, or REC short, provides a thoroughly deintellectualized way of understanding the processes involved in 'implicit' and, even, 'analogy-based' learning. This is because REC accounts characterize the most fundamental forms of cognition as a kind of organismic

activity that occurs in the form of sensitive interactions stretching across the

brain, body and environment.

According to Hutto and Myin's (2013) account of REC, the most basic kinds of cognition do not depend on retrieving, processing and manipulating informational content (pp. 4-5). Rather, REC is committed to the strong version of the following two theses: the strong Embodiment Thesis and the Development-Explanatory Thesis. Starting with former, Hutto and Myin explain that,

> Adherents to the strong Embodiment Thesis assume that, no matter how the
>
> empirical questions are answered, mentality…is in *all* cases concretely constituted
>
> by, and thus literally consists in, the extensive ways in which organisms interact
>
> with their environments, where the relevant ways of interacting involve, but are
>
> not exclusively restricted to, what goes on in the brain. (2013, p. 7)

They also explain that the Development-Explanatory thesis "holds that mentality-constituting interactions are grounded in, shaped by, and explained by nothing more, or other, than the history of an organism's previous interactions" (2013, p. 8). Thus, enactivists argue that "abilities are prior to theories," and that "knowing how is the paradigm cognitive state and it is prior to knowing that" (Hutto & Myin, 2013, p. 88).

Hutto and Sánchez-García (2014) draw on Hutto and Myin's (2013) account of REC to support an account of skill acquisition that does not involve explicit instruction. First, Hutto and Myin (2013) describe how, as children, we do not require explicit instruction on how to use our hands.

> It is not as if the children are taught by their caregivers through explicit
>
> description how to grasp or reach for items. A far more plausible hypothesis is

that we become handy through a prolonged history of interactive encounters-
through practice and habit. An individual's manual know-how and skills are best
explained entirely by appealing to a history of previous engagements and not by
the acquisition of some set of internally stored mental rules and representations.
(2013, pp. 46-47)

As adults, Hutto and Sánchez-García (2014) claim that we can continue this adaptive
approach to learning a skill from a 'non-linear pedagogy' whereby learners are not given static
rules to develop expertise. Rather, learners are given "enough flexibility to adapt to rich and
diverse performance contexts" (Hutto and Sánchez-García, 2014). Within this non-linear
pedagogy, teachers and coaches adopt a "hands-off" approach whereby, although training is
structured, the point is for the trainers to encourage the learners to "find their own individual
solutions to the task at hand." Although trainers use verbal communication to guide the training,
such communication is used to "direct the learner's attentional focus and to convey looser and
more general ideas about appropriate actions and movement patterns so as to facilitate self-
organized coupling processes." The crux is that learners learn variability more than explicit rules
and exact techniques. Here the focus is on dexterity, which involves "solving a problem again
and again with relevant variation". Taking this approach, according to Hutto and Sánchez-García
(2014), emphasises "stability and adaptability", the "landmarks of true expertise". Hutto and
Sánchez-García (2014) also add further support to the argument against Montero and Evans
(2011). In particular, Hutto and Sánchez-García's position supplements Gobet's point that some
important aspects of learning a skill that are never verbalised, which crucially affects Montero
and Evans (2011) point that experts can "retrospectively and in action" articulate and justify their
reasons.

To round out the nonconceptual accounts that support the three elements of Gobet's argument, I appeal to Christopher Gauker (2012) who argues that conceptual accounts are useless/unhelpful by focusing on two assumptions inherent to all conceptualist accounts.

Uselessness of Concepts

Gauker begins his position by explicating his target: those philosophers who claim that perceptual representations have propositional content (2012, p. 19). For example, if I look at my bookshelf, then my visual perception of the bookshelf says "That's my bookshelf". If I perceive falling snow outside of my office, then I have a visual perception that says "It is currently snowing outside of my office." Gauker claims that there are three motivations for such a philosophical outlook. The first is that if we say that our visual perceptions have propositional content, then we conclude whether our perceptions are correct or incorrect based on the truth conditions of their propositional content (Gauker, 2012, p. 19). In other words, if it is not snowing outside of my office, then my perceptual content is false. The second, he says, deals with "seeing-as". For example, Gauker says that if we perceive the duck-rabbit as a duck, then our perceptual content says "That's a duck" (2012, p. 19). The third and last assumption, according to Gauker, is that since "perceptions justify beliefs in much the way that beliefs justify other beliefs", perceptions, then, must have propositional content in the way that beliefs have perceptual content (2012, p. 19). Gauker then focuses his attention on the last motivation, arguing that it contains two further assumptions, which he argues leads to an insurmountable dilemma.

The first assumption, which Gauker calls the Expressibility Assumption, states that "wherever there is conceptual content, there is the possibility of expressing that content in words – the words of a humanly possible language" (2011, p. 60). The second assumption, the Accessibility Assumption, holds that if the perceiver is able to express the conceptual content in words, then the person should have access to the content "without undertaking any empirical investigation into the nature of his or her perception" (2011, p. 60). Montero and Evans' (2011) position is certainly consistent with these assumptions. In fact, by arguing that chess players can provide reasons for their actions "both retrospectively and in action" (2011, p. 178), Montero and Evans do not assume; they make these statements explicitly.

However, Gauker argues that these assumptions lead the conceptualist to an insurmountable dilemma in attempting to provide a description of the "the conceptual contents of perception" (2011, p. 60). In other words, "Either the concepts that are constituents in the belief-justifying propositional contents of perception include some general concepts or, instead, they are all maximally determinate concepts" (2012, p. 31). According to Gauker, this dilemma leads him to endorse nonconceptualism (2011, p. 64).

Gauker then says that conceptualist has two strategies, and he shows that both are inadequate.

- appealing to general predicates: "predicates that denote kinds, properties, and relations that can be divided into many different species" (Gauker, 2011, p. 61)

- appealing to maximally determinate predicates: "denotes only a single species" (Gauker, 2011, p. 61).

According to Gauker, general predicates are problematic as they are too vague and unhelpful. To further his point, Gauker (2011, p. 62) cites the following example:

Suppose I am looking at a certain chair. It's a Windsor chair. It has arms. It is made of wood. So the candidates for the sentences that might express the content of my perception include predicates of a wide variety of criss-crossing levels of generality, such as:

That's a chair!

That's a Windsor chair!

That's a wooden armchair!

That's a wooden piece of furniture

Gauker then asks: "How are we theorists supposed to decide which level of generality is one appropriate to the expression of the content of my perception?" (2011, p. 62). Gauker's answer is that there does not appear to be a satisfactory way to address this question, as "there does not seem to be any good way of fixing on any particular level of generality as uniquely appropriate" (2011, p. 31). In other words, Gauker's point is similar to Gobet's claim that attempts at verbalising perceptual chunks are often 'useless' – in the sense that deciding on the level of generality becomes too vague to be useful.

Another way of understanding Gauker's argument is to link it to a similar argument discussed earlier in this thesis. Recall Ratcliffe's argument against a unitary account of belief presented in chapter 2. The problem with treating the word 'belief' as unitary is that 'belief' encompasses a number of psychological states that we are able to distinguish in everyday discourse. For example, carrying an umbrella because one desires to stay dry and carrying an umbrella out of habit are qualitatively different, but FP cannot distinguish between the two. "Stating that he 'believes that p and desires that q' does not serve to distinguish the two, even though the ability to draw such distinctions is crucial in understanding his behaviour" (Ratcliffe

2008, p. 446). The point is that a phrase resembling "x believes y" is not enough to provide sufficient understanding of a particular situation. Ratcliffe concludes that, "Indiscriminate application of the term 'belief' is no substitute for a more refined contextualization" (2007a, p.238). Like Ratcliffe, Gauker argues that attempts at articulating the particular level of generality will ultimately be unsatisfactory and unhelpful.

Moreover, Gauker argues that appealing to a maximally determinate predicate is no better at addressing the dilemma than general predicates. Here the problem is that maximally determinate predicates will be too specific. For instance, a conceptualist may say that we recognise the concept of a specific chair in virtue of a specific shape. However, the problem is that I can perceive a chair from many different angles, which affects the way I perceive its shape. For instance,

> Perhaps one of the legs of the chair is occluded by the seat. So I cannot see that leg, and no concept of its shape belongs to the conceptual content of my perception. Things of many different shapes might all appear to me, from some angle, in exactly the way this chair appears to me from the angle from which I am viewing it. (Gauker, 2011, p. 62)

To sum up what I have done thus far, I present three further arguments for a nonconceptual account of perception that corresponded to the three aspects of Gobet's argument against Montero and Evans' (2011) demanding account of concepts. For instance, Kelly's argument supplemented Gobet's argument for the importance of context, Hutto and Sánchez-García's position added further to Gobet's point that some important aspects of learning a skill are never verbalised or conscious, and, finally, Gauker's argument that conceptualists are unable to provide the necessary vocabulary to describe the conceptual contents of perception

complement Gobet's point that attempts to verbalise aspects of expertise are often useless. If Montero and Evan's argument that chess expertise is "rational through and through" centrally involves a conceptual account of perception, then these nonconceptual accounts undermine Montero and Evans' argument. Now that I undermined Montero and Evans' (2011) critique of Dreyfus, I am now left to defend Dreyfus' Radical account from Selinger and Crease's (2002) distinction between an 'expert x' and an 'expert in x'.

<div align="center">

There are no 'Experts in X'

</div>

In order to defend Dreyfus' Radical Anti-Intellectualist position from Selinger and Crease's (2002) Moderate Anti- Intellectualist position, I focus on their reasons for why Dreyfus would deny expertise to an 'expert in x': Dreyfus would associate an 'expert in x' with a commentator (Selinger & Crease, 2002, p. 259) and an 'expert in x' lacks the "bodily commitment a genuine 'expert x' possesses" (Selinger & Crease, 2002, p. 259). Ultimately, I will first show that an 'expert in x' is not the kind of commentator that Dreyfus would deny expertise. Secondly, I will show that the distinction between an 'expert in x' and an 'expert x' cannot be maintained, in a similar way that Hartland-Swann argued Ryle's distinction between know-how and know-that cannot be maintained.

Commentators

To begin, Selinger and Crease's claim that Dreyfus equates an 'expert in x' with commentators originates from the following quotation:

> Dreyfus associates the knowledge of 'experts in x' ("commentators" or "kibitzers") with the "idle talk" definitive of the "public sphere" that "undermines commitment stemming from practical rationality" (1997, p. 86). The reasoning of an 'expert in x' is "not grounded in local practices" but rather in "abstract solutions" and "anonymous principles" that fail to display "wisdom". (Selinger & Crease, 2002, p. 259)

They draw this conclusion from the following quote where Dreyfus believes commentators lack expertise, as commentators do not commit themselves to the activity they critique:

> Listening to . . . commentators, who take up at least half the time on erudite talk shows, is like listening to articulate chess kibitzers, who have an opinion on every move, and an array of principles to invoke, but who have not committed themselves to the stress and risks of tournament chess and so have no expertise. (Dreyfus, Spinosa, & Flores, 1997, p. 87)

However, by equating an 'expert in x' with a commentator, Selinger and Crease fail to distinguish between two distinct claims:

1) Dreyfus believes commentators lack expertise, as commentators do not commit themselves to the activity they critique.

2) Dreyfus believes commentators lack expertise, as commentators' skill is bound in propositional thought.

Put another way, the first denies commentators expertise *qua* participants whereas the second denies commentators expertise *qua* commentators, e.g., a sports commentator or a commentator on the work of St. Thomas Aquinas. The quote from Dreyfus suggests he is concerned with those who deliberately detach themselves from activity X, but still comment and provide suggestions about activity X, which is distinct from the interpretation that Dreyfus denies expertise to commentators in general. Using Selinger and Crease's farming example, Dreyfus would deny expertise to the Secretary of Agriculture *if* this person has never set foot on a farm, but comments on the activity of farming itself. Since the Secretary of Agriculture has no direct, hands on experience in farming, any advice/suggestion/comment on the activity of farming stems from mere "abstract solutions" and "anonymous principles". However, it does not automatically follow from this quote alone that Dreyfus would deny the Secretary of Agriculture expertise *outright*, as the Secretary of Agriculture could have expertise in another domain. In other words, although Dreyfus may deny expertise to the commentator *qua* participant, it does not follow that he denies expertise to the commentator *qua* commentator.

However, at this point, Selinger and Crease could respond and say commentators *qua* commentators are still problematic for Dreyfus, as their knowledge is definitively propositional. Therefore, the distinction between 'expert in x' and 'expert x' remains intact. In the next section, however, I will show that Dreyfus would consider the Secretary of Agriculture an expert, but this does not entail that the relevant expertise is definitively propositional.

'Expert Y'

I start my argument that Selinger and Crease's distinction between 'expert x' and an 'expert in x' cannot be maintained by recalling their claim that the Secretary of Agriculture's expertise corresponds to know-that (2002, p. 258). First, by 'definitively propositional', Selinger and Crease (2002) cannot mean that the Secretary of Agriculture uses propositions in the vocation. Recall Dreyfus' understanding of know-how:

> The issue [know-how], of course, is not confined to riding a bike. All of us know how to do innumerable things that, like bike riding, cannot be reduced to "knowing that". You know how to carry on a conversation, and how to do so appropriately in a wide variety of contexts with your family, your friends, in the office, at a party, and with a stranger. Not only do you know what sorts of things to say in various social settings, but how far to stand from your conversational partner and what tone of voice to use. (Dreyfus & Dreyfus, 1986, p. 16)

Although conversations necessarily involve propositions, our knowledge of how we converse is a matter of know-how. Therefore, to count as a proper counter to Dreyfus' Radical Anti-Intellectualist account of expertise, an 'expert in x' must be a matter of know-that in order to maintain the distinction between know-that and know-how.

To a certain extent, Montero and Evans (2011) would agree with me here. Recall, in developing their argument, they said that Dreyfus can accept that some skills involve deliberation (in this particular case, the Secretary of Agriculture can use propositional knowledge), but such deliberation "occurs over a background of involved coping" (Montero & Evans, 2011, p. 177). In order to undermine Dreyfus, Selinger and Crease would need to show that an 'expert in x' exclusively uses propositions in his expertise. However, if that is the case,

then Selinger and Crease's argument is vulnerable to arguments made by both Ryle and

Hartland-Swann discussed in chapter 4.

Starting with Ryle, if the expertise of an 'expert in x' is definitively propositional,

meaning their expertise is exclusively a matter of know-that, then Selinger and Crease are guilty

of Ryle's regress argument. For instance, if the Secretary of Agriculture's expertise is

definitively propositional (i.e., a matter of know-that), then we can press for an explanation for

how and when she knows to "communicate, coordinate, and synthesize" the propositional

knowledge related to farming. If the knowledge of 'expert in x' is definitively propositional, then

Selinger and Crease's answer must, also, be in the form of know-that. However, as Ryle points

out, this will result in a regress. Additionally, using a similar argument as Hartland-Swann's,

Dreyfus would point out that although the Secretary of Agriculture utilises propositions in her

job, her expertise is found in the ability to apply the propositions correctly. This means that the

Secretary of Agriculture's expertise as a commentator *qua* commentator is a matter of know-

how, which means the Secretary of Agriculture is an 'expert x'; not an 'expert in x'.

To further my point that the commentator *qua* commentator's knowledge is a matter of

know-how, consider the following example about philosophy. Although philosophy certainly

involves analysing and deliberating over arguments that necessarily involve propositions, I do

not think that this activity is "rational through and through" in the way Montero and Evans use

the phrase. Rather, philosophy, too, "occurs over a background of involved coping", i.e., some

aspects of doing philosophy as an activity are arational. For example, while preparing a lecture

on Bernard Williams, I found a quote from Gilbert Ryle describing Williams' ability as a

philosopher. Ryle was "dazzled" by Williams' ability to understand "what you're going to say

better than you understand it yourself, and sees all the possible objections to it, all the possible

answers to all the possible objections, before you've got to the end of your sentence" (Jefferies, 2012). The crux of this quote for my point is that as an aspiring philosopher, I am fascinated with Williams' philosophical abilities. More importantly, I want to know how to do what Williams could do. Then, the question becomes, could someone teach how to philosophise as Williams? More importantly, could this instruction come in the form of know-that? I do not think so, as Williams' abilities are inextricably linked to his own particular, philosophical solicitations, i.e., his own philosophical maximal grip.

Consider Williams' explanation that he developed his philosophical skills by studying classic texts:

> We did a lot of grammatical analysis of ancient texts and that must have appealed to my taste. I was interested in philosophy before I knew I was. That's to say when I was at school I used to argue with my friends about issues that turned out to be philosophical ones of some kind. (Jefferies, 2012)

Although Williams was not tasked to give a thorough account of the source of his philosophical abilities, this quote demonstrates that many of his abilities are not matters of know-that. In particular, I point to his apparent aptitude to philosophical thought: studying these texts appealed to his philosophical "taste" and that he was interested in philosophy before he knew he was. Described this way, Williams' expertise in philosophy is bound in the way he is able to 'zero in' on the relevant philosophical issues. Again, as Dreyfus explains, 'zeroing in' is arational, as it cannot be captured by determinate facts. Describing how to develop his philosophical taste would be equally as difficult as explaining the difference, while driving a bike, between "the feeling of falling over and the perfectly normal sense of being slightly off balance when turning" (Dreyfus & Dreyfus, 1986, p. 16). Put this way, like riding a bicycle,

being a philosopher involves practical knowledge, i.e., know-how. As Dreyfus and Dreyfus say,

"The fact that you can't put what you have learned into words means that know-how is not

accessible to you in the form of facts and rules" (Dreyfus & Dreyfus, 1986, p. 16). If we were

able to put how to teach students how to think like Williams into rules and representations, it

would be a matter of know-that. However, it is exceptionally difficult, perhaps even impossible,

to do so. Therefore, philosophical thinking is a matter of know-how: knowing how and when to

apply the appropriate propositions. Therefore, philosophical thinking is not "rational through and

through".

In a similar vein, a Secretary of Agriculture's knowledge cannot be captured sufficiently

by know-that. This means that the Secretary of Agriculture would be an expert, according to

Dreyfus, but not an 'expert in x'; Dreyfus would consider the Secretary of Agriculture an 'expert

y'. Whereas the farmer's local practice is X (on the farm), the Secretary of Agriculture's local

practice is Y. In order for Selinger and Crease's 'expert in x' to be a counter to Dreyfus, they

would need to show that the knowledge of an 'expert in x' is definitively propositional, not just

that it involves propositions.

Potential Objection

I would now like to address the possible objection that although we might not rely on

representations at the conscious level, we might unconsciously. Dreyfus does address this

objection briefly by first stating that although this argument has been attractive for 2500 years,

"it is a very poor argument" (2002b, 416). The force of Dreyfus' response is to attack the

argument itself. As he states,

By parody of reasoning, one could argue that, since beginning bicycle riders can only stay upright by using training wheels, when they finally manage to ride without training wheels, we should conclude they must then be using invisible ones, and the burden of proof is on anyone who thinks otherwise. (Dreyfus, 2002b, 416)

Ultimately, since Dreyfus' account provides a way of understanding skilled behaviour whereby the salient features of the activity are *presented* rather than *represented* to the actor, representations at either level (personal or subpersonal) are superfluous and the burden of proof is now on the representationalists. As he says in further detail,

It seems to me that, once cognitivists give up the underlying assumption that there can be only one form of processing involved in producing intelligent behavior, so that, if mental representations are not conscious, they must be operating unconsciously, the phenomenology of transparent coping shifts the burden of proof to those who want to argue for unconscious rule following in all skilled performance. Such latter-day Platonists need an empirical or a philosophical argument that *all* intelligent behavior can and must be explained in terms of conscious or unconscious propositional representations. (Dreyfus, 2002b, p. 416)

Another argument against implicit representations at the subpersonal level comes from Hutto (2005). To begin, Hutto contextualises his argument against implicit representations by outlining the defining feature of enactivism: "the rejection of the very idea that we can make sense of the basis of everyday skills in terms of the manipulation of underlying tacit representations of a pre-given world" (2005, p. 389). Hutto also contextualises the enactive project within Ryle's distinction between know-how and know-that. First, Hutto says that

cognitivists and enactivists fundamentally disagree about the nature of cognition; the former see cognition as a matter of know-that and the latter see it as a matter of know-how (2005, p. 389). Secondly, Hutto accuses some conservative enactivists for falling victim to Ryle's Regress Argument (2005, p. 396).

In arguing in favour of his Radical Enactivism, Hutto targets the conservative enactivist claim that various subpersonal activities rely on knowledge. For instance, Hutto states some conservative enactivists (e.g. Alva Noë) argue that visual perception is a matter of know-how. Hutto takes issue with using the word 'knowledge' in this context to describe activity at the subpersonal level. In Hutto's words, "I find the invocation of knowledge...to be treacherous (and ultimately unnecessary)" (2005, p. 391). Specifically focusing on the subpersonal level, Hutto continues by arguing that if we say the brain is capable of "assuming, judging, and concluding all sorts of things about observers and objects," (2005, p. 392-393), then we commit ourselves to the claim that the brain does so by employing either propositional knowledge or subpersonal representation (2005, p. 393). Like Dreyfus, Hutto rejects an account of implicit representations. As he states, "No one in this day and age would be tempted to explain the behaviour of a falling rock by suggesting that it, or any of its integral parts, is attuned to such laws or that it exhibits a mastery of them. Why then should operations of our sensory systems be regarded as essentially different..." (Hutto, 2005, p. 393)?

Hutto's alternative is the "proper function approach". The benefit of this approach, according to Hutto, is that you discuss the success and failure of a device without the appeal to terms such as 'skill', 'mastery', or 'knowledge' (2005, p. 395). Hutto uses the example of human lungs to illustrate his point. Lungs can cease functioning, but their failure is not to be understood by a lack of skill or knowledge (Hutto, 2005, p. 395). For example, lungs do not stop functioning

because they forgot something. Rather, according to Hutto, we understand this case as a biological device that did not perform its function correctly. According to Hutto, "They [lungs] have biological proper functions and in this sense they may not operate as they should; they can fail to carry out these functions by not producing the kinds of results that items of this type historically produced to good effect" (2005, p. 395). If this is the case, Hutto argues that subpersonal processes do not follow rules: "there are no laws or principles that are internally (or externally) represented, consulted, mastered or obeyed" (2005, p. 395). Furthermore, Hutto says that any laws that may derive from our behaviour turn out to be "descriptions of the *process* or *products* of the activity in question"; "These laws are not *used* by the organisms or their sub-systems" (2005, p. 395). Dreyfus would agree with Hutto, as he says that "it is the *embodied agent* that responds to the solicitation by doing what feels appropriate; the brain isn't *responding* to anything; it's just relaxing into a basin of attraction" (2002b, p. 420).

Conclusion

This chapter defended Dreyfus' Radical account of expertise from arguments made by Selinger and Crease (2002) as well as Montero and Evans (2011). In the next chapter, I will continue to defend Dreyfus' account by also addressing Selinger and Crease's argument that Dreyfus' account of expertise does not develop intersubjectivity sufficiently. Doing so will culminate in the development of an account of 'Intersubjective Maximal Grip', a way in which we anticipate and respond to others in everyday situations that does not involve the attribution of propositional attitudes to others.

Chapter 6: Making Implicit Intersubjectivity Explicit

Chapter 5 defended Dreyfus' Radical Anti-Intellectualist account of expertise from

Moderate Anti-Intellectualist arguments made by Selinger and Crease (2002) and Montero and

Evans (2011). Chapter 6 continues my defence of Dreyfus' account of expertise by addressing

the concern that it neglects various intersubjective aspects. For instance, in addition to taking

issue with his Radical Anti-Intellectualist account of expertise, Evan Selinger and Robert Crease

(2002) acknowledge that although coaches and instructors appear in the earlier stages of

expertise in Dreyfus' account, coaches seemingly disappear from Dreyfus' discussion in the later

stages. However, Selinger and Crease say that coaching is a form of expertise even in "Dreyfus'

own terms", as coaches develop a unique MG which involves "the ability to optimise the

conditions to allow the pupil to go beyond not only his or her present performing ability, but the

coach's as well" (2002, p. 260). Having focused his discussion of MG on inanimate objects,

Dreyfus neglects the intersubjective aspect of examples that are inherently intersubjective, e.g.,

coaching explicitly involves developing an optimal position in a given situation with or around

another person. I, then, take Selinger and Crease's (2002) argument as a challenge to explicate

the intersubjective aspect of his account, which I take up in this chapter.

My defence starts with Gallagher's (2007a) argument that the intersubjective abilities

displayed in both primary and secondary intersubjectivity are "endogenous to the embodied

practices that constitute practical knowledge" (2007a p. 206). I, then, expand on Gallagher's

argument to show that the intersubjective aspect to Dreyfus' account is implicit. To do so more

fully, I appeal to Thomas Fuchs and Hanne De Jaegher's (2009) distinction between

unidirectional incorporation (the way we incorporate inanimate objects) and mutual

incorporation (the way we incorporate animate objects). I will show that their discussion of these types of incorporation can explicate some of the implicit intersubjective elements of Dreyfus' account of expertise, which will address Selinger and Crease's concern about the missing intersubjective aspect of Dreyfus' account of expertise. However, I should be clear in saying that MI is not meant to do all of the work of making the implicit intersubjective aspects explicit. I conclude this chapter by raising some issues with Fuchs and De Jaegher's account of incorporation, e.g., the issue of not distinguishing between 'extension' and 'incorporation'. Raising these issues with their account of incorporation will act as the transition to the last chapter of this thesis where I introduce IMG, which describes a way we expertly interact with each other that does not require the attribution of propositional attitudes.

Before I go any further, I will start with a brief summary of Selinger and Crease's argument against the intersubjective aspect of Dreyfus' account.

Limited Development

In addition to having issues with Dreyfus' Radical Anti-Intellectualism, Selinger and Crease (2002) raise two arguments concerning the intersubjective aspect of Dreyfus' account of expertise. The first is that Dreyfus does not sufficiently answer the recognition problem (the problem of how to recognise experts as experts). For instance, if I need a plumber to fix a leaky faucet in my house, how would I, someone who knows little to nothing about plumbing, know whether X is an 'expert plumber'? *Prima facie* evidence could come in the form of recommendations from previous employers or clients, proof of training in the form of diplomas or degrees, and so on. In other circumstances, experts are required to provide more thorough

proof of their expertise. For example, ballistics experts are often called upon in legal matters to prove someone guilty or innocent, and, as Selinger and Crease state, the ballistics expert will be expected to prove her expertise in the form of propositions in order to be convincing to a jury (2002, p. 256).

However, Dreyfus would object to relying on such justification to verify expertise. Citing Douglas Walton, Selinger and Crease say that Dreyfus endorses the "strong form of the inaccessibility thesis", which is the position that expertise cannot be traced back to a set of rules or propositions (2002, p. 257). In fact, Dreyfus would argue that one could lose expertise by giving such rules or propositions, as this would signal regressing to earlier stages of skilful coping, e.g., proficiency or competency. For example, Dreyfus accredits the source of our choking as replacing our know-how with know-that (Dreyfus & Dreyfus, 1986, p. 17).

The second objection, and the focus of this chapter, is that Dreyfus neglects to develop the intersubjective aspects of expertise. I chose not to address the first objection for similar reasons as Gallagher (2007a); namely, the problem with the first objection, according to Gallagher (2007a), is that it is primarily concerned with 'external factors' to embodied practice (p. 205). In other words, it puts the problem of expertise from the outside looking in. However, Gallagher argues that there are important intersubjective elements that are inherent in embodied action. Since this thesis ultimately argues for a specific form of interaction between embodied agents, I, following Gallagher, focus on the second objection.

Selinger and Crease identify Dreyfus' discussion of MG as the source of the problem with intersubjectivity in his account of expertise. Recall, the majority of Dreyfus' examples to illustrate MG are of inanimate objects, e.g., the MG for a tennis player is the appropriate angle to hold the racket in order to return a serve. However, Selinger and Crease (2002) argue that

Dreyfus neglects to develop the various intersubjective elements involved in playing tennis, e.g., one's partners, opponents and coaches. To illustrate this point further, Selinger and Crease discuss the expertise involved in being a coach.

Selinger and Crease first discuss the coach as an example of an expert that Dreyfus "passes over" (2002, p. 259). Although coaches and instructors appear in the earlier stages of expertise in Dreyfus' account, they point out that coaches seemingly disappear from Dreyfus' discussion in the later stages. Selinger and Crease reason that the coach's disappearance stems from Dreyfus' rejection of 'experts in x': since the coach's expertise is caught up in propositional representations, they say Dreyfus would consider a coach an 'expert in x'. However, Selinger and Crease say that coaching is a form of expertise even in "Dreyfus' own terms" (Selinger & Crease, 2002, p. 260), as the coach has a particular MG that Dreyfus neglects to develop[44]. The coach's MG, as Selinger and Crease state, involves, "the ability to optimise the conditions to allow the pupil to go beyond not only his or her present performing ability, but the coach's as well" (Selinger & Crease, 2002, p. 260). They continue to say that one aspect of this MG is the coach's ability to perceive what the best course of action would be for the performer in the given activity and when it is best to intercede in order to show how the performer to get better (Selinger & Crease, 2002, p. 260). Developing a MG around another person crucially involves intersubjectivity, which, again, Dreyfus did not develop while discussing inanimate objects such as tennis rackets and cars.

This chapter takes up Selinger and Crease's challenge to develop the intersubjective aspect of Dreyfus' account by beginning with Gallagher's (2007a) argument that intersubjectivity is implicit in expertise.

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[44] One could also briefly cite this as further support for my previous argument that there are no 'experts in x'. Rather, every expert develops his/her own MG within the given situation, which is consistent with an 'expert x'.

Implicit Intersubjectivity

Although Gallagher acknowledges that Dreyfus ignores the importance of social interaction (2007a, p. 203), he does argue that embodied, practical action has implicit intersubjective factors. He further argues that developing this "endogenous intersubjectivity" is important for a full account of expertise (2007a, p. 205). Specifically, Gallagher argues for a model of expertise that "takes account of the social, not just as a communicative-linguistic phenomenon, and not just as a social cultural external limitation on embodied practices, but as a dimension that is already built into embodied action" (2007a, p. 206).

To defend his position, Gallagher points to neuroscience, developmental psychology, and phenomenology. Starting with neuroscience, Gallagher references work on mirror neurons. As described in previous chapters, mirror neurons are a particular class of visuomotor neurons originally discovered in area F5 of monkeys' ventral premotor cortex (Gallese & Goldman, 1998, p. 493) that activate both when the subject acts and when a subject perceives another performing an intentional action of the same kind. In Gallagher's words, "These activities involve neural processes that are implicit and endogenous to the motor system of the embodied self as it enters into intersubjective relations with others" (2007a, p. 207).

Gallagher also claims that these subpersonal processes, central to our understanding of others, are extremely beneficial in learning practical action, as the emphasis is on observation, imitation, and re-enactment of behaviour rather than relying on theory[45]. For example, if I

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[45] This claim is built on Gallagher's (2007b) argument that mirror neurons are not evidence for FP. Specifically targeting implicit ST, recall Gallagher's claim, which I state is a central part of 'Gallagher's Razor', "Either the neurons fire or they do not. They do not pretend to fire" (2007b, p. 361).

wanted to learn how to hammer nails into boards, arguably, observing an expert hammering nails into a board and then attempting to imitate that expertise is the best start. As I watch the expert perform the action, mirror neurons can aid in learning how to do it myself, which I can begin to emulate. This does not mean that whenever I observe someone perform a specific action I will automatically know how to perform that action. However, observation and imitation at this level will aid more in learning how to hammer nails than reading a textbook on the matter.

In developmental psychology, Gallagher discusses Trevarthen's work on primary and secondary intersubjectivity, which I addressed in Chapter 2. Briefly, recall that primary intersubjectivity refers to the way in which newborns are already equipped with "primitive" ways of understanding others, e.g., neonate imitation where infants are able to distinguish between animate and inanimate objects and are able to respond to human faces (Gallagher, 2007a, p. 208). Building on abilities described in primary intersubjectivity, children begin to interact with others further and develop secondary intersubjectivity. For instance, children usually develop the ability for shared or joint attention around 9-14 months where the child alternates between looking at the other and what the other is looking at. Children at this age also look to other's expressions in order to interpret the meaning of a particular event. In doing so, the child has begun to develop shared attention. As Gallagher says, "Thus, around the age of one year, the infant goes beyond person-to-person immediacy and enters contexts of shared attention – shared situations – learning what things mean and what they are for" (2007a, p. 209).

Gallagher also adds that the skills developed in primary intersubjectivity do not disappear as the child develops further intersubjective skills in secondary intersubjectivity. Rather he claims these skills remain and aid in the development of these various social experiences (2007a, p. 209). In addition, primary and secondary intersubjectivity have a practical/pragmatic element,

as these forms of intersubjectivity aid in learning "*how to* act and *how to* feel about that action [my emphasis]" (2007a, p. 209). I highlight this brief phrase as the emphasis should be that this is a matter of know-how, which denotes it is a matter of practical reason, not knowing-that.

Lastly, Gallagher discusses how phenomenologists such as Heidegger, Gurwitsch, and Merleau-Ponty complement Trevarthen's work on primary and secondary intersubjectivity. As Gallagher says, some phenomenologists emphasise secondary intersubjectivity when they argue that understanding something's meaning depends on its pragmatic context (2007a, p. 209). This is evident in phenomenological discussions of tool use, e.g., hammers are meaningful in relation to the context of hammering. Gallagher also refers to Gurwitsch's position that how we understand others is dependent on understanding "instrumental/pragmatic contexts" (2007a, p. 209). For example, we understand a referee in relation to his role in a game, we understand our teacher in her role in our participation of learning, and so on.

Merleau-Ponty's work also complements primary intersubjectivity by focusing on how our understanding of others is based on how we perceive their intentions through their expressions, movements and gestures. Merleau-Ponty calls this way of understanding others 'intercorporeality', which is defined as a "natural interaction of bodies that generates meaning in so far as we see the intentions of others in their expressive movements" (Gallagher, 2007a, p. 210). Gallagher, then, claims that this discussion of intercorporeality indicates "an *endogenous intersubjective* dimension of embodiment," which allows for secondary intersubjectivity and has important implications for understanding practical reasoning (2007a, p. 210).

Following Gallagher's (2007a) discussion of the implicit intersubjective elements of embodied interaction as it applies to practical knowledge, I will now begin to explicate the intersubjective elements implicit in Dreyfus' account of expertise by presenting Thomas Fuchs

and Hanne De Jaegher's distinction between unidirectional and mutual incorporation. Doing so will bring out many of the implicit intersubjective elements of Dreyfus' discussion of MG.

Unidirectional Incorporation

Although Fuchs and De Jaegher do not offer a formal definition of unidirectional incorporation (hereafter UI), we can formulate a basic definition of the phenomenon in question by quoting them slightly out of context: UI refers to the integration of an instrument into the motor schema that acts like an "additional limb or an extension of the body, subjectively felt as 'melting' or being at one with the instrument" (2009, p. 472). Fuchs and De Jaegher use a number of examples to illustrate this concept, but I will focus on the "skilful handling of instruments" whereby one allows the fingers to "find the keys by themselves" (Fuchs & De Jaegher, 2009, p. 472), as these examples are more directly related to Dreyfus' discussion of MG.

To further illustrate their example, allow me to elaborate on a personal example. When I was given an acoustic guitar as a present many years ago, my father taught me the introduction section of the song "The Wildwood Flower" by the Carter Family. Not being a fan of country music but eager to learn how to play the guitar, I practiced that section for so long that even over a decade later from first learning it, I can pick up any tuned guitar and play that section with my eyes closed. I simply "let my fingers find the correct spots". It is also important to stress that, in many instances, if I try to reflect on how to play this section of the song or if I try to play it on a different instrument, my performance is severely undermined; Fuchs and De Jaegher would say I incorporated the guitar. A more radical example, emphasising the incorporation of the guitar,

comes from Rory Gallagher, who was ranked 42 of the top 50 guitar players of all time by

Gibson.com (Gibson.com 2010). According to Gallagher, "The guitar is a part of me" (Corbin,

2012).

Fuchs and De Jaegher also use the example of incorporating a car when they say that in

some cases we are able to feel the road surface through the tires while driving (2009, p. 472). For

instance, a friend of mine claims that he feels pain when he drives over a pothole. I should be

clear and say that this pain is not solely located in his biological body, e.g., my lower back and

neck are often pained as a consequence of driving over a pothole. Rather, my friend feels the

pain *through* the car, as though he was feeling the pain on behalf of the car, which Fuchs and De

Jaegher would consider a case of incorporating the vehicle. Fuchs and De Jaegher also

emphasise feeling through an object when they discuss Merleau-Ponty's example of a blind man

using a cane in order to navigate his path as an example of UI (2009, p. 472). In making this

claim, they cite the following quotation from Merleau-Ponty, "The blind man's stick has ceased

to be an object for him, and is no longer perceived for itself; its point has become an area of

sensitivity, extending the scope and active radius of touch, and providing a parallel to sight"

(1962, p.143). In this case, the blind man has incorporated the cane into his body schema and he

is able to use it effortlessly in a way that we might be tempted to say is now a part of him.

Fuchs and De Jaegher also claim that we can incorporate objects that are not directly in

contact with our body, or in their words, incorporation is not something "restricted to that which

is near the skin" (2009, p. 473). Using an example of jumping over a creek, they say that in order

to jump successfully from one bank to the next you need to incorporate both banks of the creek,

the side we are currently standing on and the side we want to be on. As they say, if we remained

focused solely on the side we are standing on, we will not successfully make it to the other side.

They also say that the anticipation of our trajectory you will take also aids in successfully jumping from one side to the other (Fuchs & De Jaegher, 2009, p. 473). Fuchs and De Jaegher apply this wide-ranging notion of incorporation to Dreyfus' tennis example. In order to successfully return the tennis ball, we must incorporate a number of things, one of which is the ball's trajectory, by *feeling* it. In their words, "In order to hit the incoming ball properly, the player incorporates its trajectory—he actually moves with the ball from where it starts and feels it approaching—and thereby adjusts his return to it from the very beginning" (Fuchs & De Jaegher, 2009, p. 473).

Fuchs and De Jaegher are also quite explicit about temporality's involvement in the process of incorporation. Recall the discussion of Mensch's example of reaching for a glass of water I presented in Chapter 4. Mensch claims that in order to successfully reach for a glass of water and to bring it to my lips, I must make a number of appropriate anticipations. As Mensch says, "When the match is perfect, the action proceeds effortlessly, the flow of perceptions being just what I anticipate" (2001, p. 101). Fuchs and De Jaegher would agree and add that when we make all of the appropriate anticipations, we have incorporated the glass. To further the importance of temporality, Fuchs and De Jaegher also emphasise the important role of motion. As they say, in order for the blind man to feel through the cane, he must move it, which is an essential component of incorporation (Fuchs & De Jaegher, 2009, p. 473). In explaining this, they refer to a "gestalt cycle" between motion and perception. The intertwining of both motion and perception allows for the organism and environment to "co-constitute each other" (Fuchs & De Jaegher, 2009, p. 473). As they say in their own words, "What an organism senses is a function of how it moves, and how it moves is a function of what it senses. Thus, the touching

hand anticipates and selects what it feels by its movements, whereas the shape of the object

reciprocally guides the hand's touching" (2009, p. 473).

The emphasis on motion in this context resembles Rodemeyer's claim, discussed in

chapter 4, that there is a strong link between protention and motion in general, as "motion is in

itself always one step ahead of the sensation. I must be intending motion just prior to intending

the feeling in order to be moving and thus facilitating the feeling" (2003, p. 136). Rodemeyer

also states that motion has a twofold notion of expectation whereby we anticipate the sensation,

e.g., the feeling of an object like the keyboard on my laptop, and the ability "to be ahead of

myself" in order to move. Both, she states, requires protention (2003, p. 136).

Given what Fuchs and De Jaegher say about UI, I believe it closely resembles MG;

whereas Dreyfus would say you develop MG, Fuchs and De Jaegher would say the object is

incorporated. The key similarity between Dreyfus' discussion of MG and Fuchs and De

Jaegher's discussion of UI rests on the skill involved with objects. Both MG and UI describe

one-sided skills, e.g., I gain expertise in using a tennis racket, but the tennis racket does not gain

expertise in using me. Now we are left with the issue of intersubjectivity: how does UI relate to

the intersubjective aspect of Dreyfus' account of expertise? For the purposes of this chapter,

however, in addition to UI, Fuchs and De Jaegher also argue that we incorporate others, which

they call "mutual incorporation" (MI). MI is unique in that it centrally involves the "reciprocal

interaction of two agents in which each lived body reaches out to embody the other" (2009, p.

474).The next section describes MI further and then shows how MI can further uncover the

intersubjective aspect of Dreyfus' account of expertise.

Mutual Incorporation

In order to distinguish the two kinds of incorporation, Fuchs and De Jaegher describe UI as a "coordination to", whereas MI as an "incorporation with" (Fuchs & De Jaegher, 2009, p. 474). The key difference between MI and UI, then, is that MI involves the response from another embodied agent that is not present in UI. Returning to the ubiquitous example of playing tennis, Fuchs and De Jaegher claim we incorporate both various inanimate objects (e.g., the tennis racket, the tennis ball, and the boundaries of the court), and the other tennis player (in this case, one's opponent). They say that the incorporation of the other is evident when our body responds to the other's force and direction of his serve. As Fuchs and De Jaegher say, "I not only incorporate the ball and its trajectory but also my opponent's position, posture and movements. I feel the thrust and direction of his stroke as well as the momentum the ball receives, and with this, my own body's reaction is already being prepared" (Fuchs & De Jaegher, 2009, p. 474). For example, if I notice my opponent's arm is tense, this indicates he will strike the ball forcefully. In response, my body will prepare for a fast approaching tennis ball. He, too, has to respond to my response, and so on. Fuchs and De Jaegher call this interplay of responses and reactions a 'feedback/feedforward' cycle between the actions of the tennis players involved (2009, p. 474). By this they mean that player A's actions causes a response in player B, player B's action causes a response in player A, which in turn elicits a response back to player B, and so on. This is why Fuchs and De Jaegher refer to MI as a coordination with others.

Another way of putting the difference is that UI lacks a component of 'otherness' (Fuchs & De Jaegher, 2009, p. 475). The example they give is that when we smile at another person, this person often responds with a smile as well, which also affects us in return. In such an everyday example, my body affects another's body and it in turn affects mine in a cycle. Fuchs and De

Jaegher also use the example of a 'fight of gazes' as an instance of MI. Here they refer to eye contact between people, which acts as an unspoken dialogue. As they say in more detail,

> I may feel the other's gaze as a pull, a suction, or also as an arrow that hits me and causes a bodily tension; I may feel his gaze right on my face (e.g. when blushing with shame); I may be fascinated by the gaze or withstand it, 'cast it back' etc. My reaction to the other's gaze already influences his next action. (Fuchs & De Jaegher, 2009, p. 474-475)

It should also be stressed that although they distinguish between UI and MI, Fuchs and De Jaegher say the distinction is conceptual; they are not easily separated and distinguishable in reality (Fuchs & De Jaegher, 2009, p. 474). In one way, their claim is similar to Rodemeyer's explanation that we have to abstract the primal impression in order to phenomenologically analyse it, as it is very difficult to isolate the primal impression in our experience of temporality. In a similar way Fuchs and De Jaegher are saying it is difficult to separate UI from MI, as we often develop UI through MI and that UI is directly affected by MI. For instance, my daily routine of driving to the university involves incorporating my car (UI), which is then used in my interaction with other motorists and pedestrians (MI); I am unable to neatly demarcate between I am only using UI and only using MI.

I will now use their claim about the difficulty of demarcating between UI and MI to explicate the intersubjective aspect of Dreyfus' account of expertise. The rationale behind this move is that if we say UI and MG are similar in that they both focus on the skillful use of objects and that UI and MI are only conceptually distinct, then it can be argued that MG has a necessary intersubjective aspect.

Making Implicit Intersubjectivity in MG Explicit

First, recall Dreyfus' example of developing a MG on a tennis racket. Of course, this is not something we generally do in isolation; we generally learn how to best hold a racket in order to play tennis from, or in response to, others. This is where Fuchs and De Jaegher's discussion of playing tennis is so helpful. They discuss how we respond and react to other tennis players, which begins to unearth the intersubjective aspects of MG, e.g., a coach helps us develop our MG by giving us advice and helping us find these optimal positions. Therefore, in developing a MG on a tennis racket, there is the implicit intersubjective aspect of interacting with others during game play and there is the intersubjective element of learning how to develop a MG in the first place.

The same analysis can apply to Dreyfus' example of driving a car. It is rare to drive a vehicle and not encounter other people, e.g., pedestrians, other motorists, or bicyclists. Therefore, when we develop a MG on a car, we have to account for other drivers. For example, if I learn to merge into traffic, I have to consider the speed of my car, how much pressure to put on the accelerator (as some cars may require more force on the accelerator to achieve the appropriate speed), but I also have to account for my fellow drivers. For example, I always ensure to keep a safe distance between my car and the car ahead of me; therefore, that driver directly affects my MG while driving. To further explicate the intersubjective element in MG, consider these two personal examples.

In the past, I acted as a junior karate instructor where one of my duties was to help beginners learn specific stances. Assessing whether or not a student had a 'good stance' required observing the position of their feet, how low their centre of gravity was, and so on. This involved

various pedagogical techniques. One was visual. If there was a mirror in the dojo, I would have

them get in the stance and point out where they were doing well and where they needed work.

Another involved them 'feeling' what the correct position was. This involved having them get in

the correct stance and then telling them something simple as: "Do you feel how this stance

makes your muscles tense in specific locations? Whenever you get this feeling, you know you

are in the proper position".

Also, as someone who has taught introductory philosophy classes to undergraduates, I go

through a similar process of introducing students how to think philosophically. Rather than

assessing their physical stances, I would assess through exams, essays, or through discussions

during office hours. For instance, I taught Critical Thinking at Saint Mary's University during

2012-2013 academic year, and I would often meet with students prior to an exam in order to

discuss various material they might find confusing. In one instance, I met with a student to

discuss the difference between logical possibility and impossibility and physical possibility and

impossibility. I started our meeting by asking her to give me an example of how she currently

understood the distinction and her response was that giant lobsters were both logically and

physically impossible. As soon as she finished explaining her example, I interceded and, using

her own example, said that giant lobsters are actually logically possible, as something is logically

impossible only if there is a contradiction in its nature. I then offered the example of a squared

circle to illustrate the contradiction in its nature. It was important for me to continue using her

original examples, as it corrects her initial understanding and it might aid in her replicating the

example during the exam.

At this point, someone could object and say that this can be accounted for by the

transmission of propositional knowledge. However, as I argued in chapters 4 and 5, the fact that I

use propositional knowledge is different than knowing how to apply it. For instance, as I am explaining the concept in propositional terms, my tone, body language hand gestures, eye contact, and so on all adapt in that situation to best convey the information in the way that will be the most conducive for the student. It should be emphasised that this is a highly contextual act. For instance, I could see that one student responded more favourably with a warmer tone whereas another student seemed to respond better with a more stern tone. Emphasising this contextual response mirrors Dreyfus and Dreyfus' discussion of conversational know-how: "Not only do you know what sorts of things to say in various social settings, but how far to stand from your conversational partner and what tone of voice to use" (Dreyfus & Dreyfus, 1986, p. 16). Therefore, the simple exchange of information does not account for the crucial aspect of contextual cues in our interaction as student and instructor.

Both as the karate instructor and a philosophy instructor, I sought that my students learn the skill in question, and I would intercede when I thought it was necessary to aid in their learning. It is also crucial to note that my abilities as an instructor exemplify Dreyfus' account of expertise, as they are actualised through practical knowledge – adapting to contextual cues and responding in intuitive, atheoretical ways. Selinger and Crease appear to agree when they say that since coaching advice is so individualised, "the knowledge embodied in coaching cannot be reduced to rules of thumb" (2009, p. 259). Therefore, my expertise as an instructor is best characterised as an 'expert y' rather than an 'expert in x'.

Now that I have developed the intersubjective aspect of Dreyfus' account of expertise further by relating Dreyfus' discussion of MG to Fuchs and De Jaegher's account of UI and MI, I want to briefly discuss why MI does not entail FP[46]. Like Gallagher, Fuchs and De Jaegher also

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[46] Since the ultimate aim of this thesis is to supplement the interactionists' positions by using Dreyfus' account of expertise, I must begin by demonstrating how this counters FP.

list several shared presuppositions held by the proponents of FP and they demonstrate that MI does not share these presuppositions. I will now present Fuchs and De Jaegher's discussion of these presuppositions and how MI avoids them.

Undermining FP with MI

Like Gallagher, Fuchs and De Jaegher start their critique of FP by first explaining several key presuppositions and elements of FP. The first presupposition is what Fuchs and De Jaegher call the 'Inner world' hypothesis (2009, p. 467). Since both TT and ST presuppose that our mental states are not directly perceivable, we must infer the relevant mental states via inference or projection. In their words, "Both TT and ST conceive of the mental as an inner realm separated from others by an epistemic gulf that can only be crossed by inference or projection. We are hidden from each other in principle; therefore, we must infer or simulate the other's inner states in order to understand him" (Fuchs & De Jaegher, 2009, p. 467). Another issue is the missing discussion of the nature of interaction by the proponents of FP. Here the issue is with the proponents of FP's assumption that an observational approach (either third-person or impersonal) can best account for social understanding. Doing so, according to Fuchs and De Jaegher, sets up a "one-way" or "unidirectional" research paradigm whereby social cognition is "localised" in the operations of the brain (Fuchs & De Jaegher, 2009, p. 467). Understanding social cognition this way assumes "a disembodied sender–receiver relation" whereby the body only serves as a "transmission device" (Fuchs & De Jaegher, 2009, p. 467). Fuchs and De Jaegher argue that their discussion of incorporation counters such a representationalist, cognitivist interpretation of social understanding.

Like the other interactionists described in Chapter 2, Fuchs and De Jaegher show that we do not use "any imaginative, introspective simulation or inference" in most of our everyday interactions with others (2009, p. 467). Starting with UI, we are able to incorporate a wide variety of objects from a considerable distance without recourse to mental representations. Take the example of jumping across the creek to reach the other bank. They say that this action is not a "mental feat". Rather, they say that it is a lived experience of the "sensormotor gestalt cycle" that is comprised of both the distance to the other side of the creek and the bodily preparation to leap across the creek. They say that these two features are "co-determined in the same embodied action" (Fuchs & De Jaegher, 2009, p. 473).

As discussed and argued for in the last section, Fuchs and De Jaegher's discussion of UI resembles Dreyfus' discussion of MG. Using the tennis example as well, Fuchs and De Jaegher say that the tennis player does not form a mental representation of how to hit the approaching ball. Rather the ball is incorporated into the body schema such that the player "lets his arm be drawn to the appropriate position" (Fuchs & De Jaegher, 2009, p. 473) in order to strike the ball. They say that since the approaching ball is incorporated, the approaching ball "immediately evokes the corresponding movement of the arm (Fuchs & De Jaegher, 2009, p. 473). Dreyfus might agree and say that the tennis player sees what needs to be done and does it without 'thinking' about it.

They further their argument that MI undermines FP by arguing that social understanding is primarily based on intercorporality, which means social understanding is primarily an interactive activity between two embodied agents (Fuchs & De Jaegher, 2009, p. 482). MI, then, describes how these two agents form such an intercorporality (Fuchs & De Jaegher, 2009, p. 465). Referring to how MI counters FP, Fuchs and De Jaegher say that we do not incorporate the

other through an "inner modelling" (2009, 474), which separates their position from most

simulation theories. Looking at the examples that Fuchs and De Jaegher discuss, the emphasis is

on the direct, bodily interactions with others that evoke a reciprocal response between self and

other. Fuchs and De Jaegher, then, complement Gallagher's discussion of embodied practice, by

saying social understanding develops as a "practical sense" rather than through detached

observation (2009, p. 482).

Although I agree with most of what Fuchs and De Jaegher say about MI (specifically

how aspects of their discussion of MI can be used to uncover the intersubjective elements in

Dreyfus' account), the concept does have some problems. I begin the second part of this chapter,

then, by raising several concerns about MI. The central concern I raise is that Fuchs and De

Jaegher do not clearly distinguish between the terms 'extension' and 'incorporation'. For

instance, they define MI as "a process in which the lived bodies of both participants *extend* [my

emphasis] and form a common intercorporality" (2009, p. 465). In addition, in explaining how

UI works, they say, "Incorporation is not restricted to that which is near the skin, however—the

lived body *extends*[my emphasis] to whatever object it is interacting with" (Fuchs & De Jaegher,

2009, p. 473). However, a number of philosophers argue for the need to distinguish between

these terms, e.g., Evan Thompson and Mog Stapleton state that we need to distinguish between

these two terms as they have a "phenomenologically different status" (2009, pp. 28-29).

Although Fuchs and De Jaegher do not explicitly endorse a method of demarcation, I

present Evan Thompson and Mog Stapleton's (2009) 'transparency constraint' as a potential

candidate that Fuchs and De Jaegher could utilise. Briefly stated, Thompson and Stapleton argue

that anything external to our body (e.g., tools and other aids) that can "function transparently" is

said to be incorporated into the body schema (2009, p. 29). Thompson and Stapleton offer the

examples of Edward Scissorhands and Sweeny Todd to illustrate their point. Although they do not explicitly state it, presumably Sweeny Todd is an example of extension, as he uses objects that extend his ability as the demon barber of Fleet Street, and Edward Scissorhands is presumably an example of incorporation, as his scissorhands act as prosthetic limbs, allowing him to engage in the world by perceiving through his scissors.

However, I am doubtful the existing ways to demarcate between 'extension' and 'incorporation' can satisfactorily account for expertise and intersubjectivity (either separately or combined). For instance, in the next section I argue that the transparency constraint does not effectively distinguish between 'extension' and 'incorporation' once we introduce Dreyfus' account of expertise. The purpose of this argument is to show the weaknesses of MI and to set up the next chapter where I introduce a new concept that avoids such problems.

Distinguishing Between Extension and Incorporation

Since the recent interest in embodied accounts of cognition emerged, a number of researchers are starting to develop specific research projects concerning the nature of the body and how it interacts with the environment and others. For instance, one research project focuses on the boundaries of the body. Recall Fuchs and De Jaegher's claim that we can incorporate objects that are not near the body. Saying this implies that the boundaries of our lived bodies are ambiguous, i.e., there is no direct point where the feeling body starts and ends. As they say,

> Incorporation therefore does not imply that the incorporated object be near or on the body. Rather, we incorporate by forming a sensorimotor gestalt cycle towards

it, any object we interact with. In this, our lived body is ambiguous: it is at the

same time here and there, preparing for a move while also already extended

towards its goal and outcome. (Fuchs & De Jaegher, 2009, p. 473)

Gabrielle Jackson (2013), for instance, also addresses this ambiguity concerning tool use

and its implications for understanding the boundaries of peripersonal and personal space. The

driving question for Jackson is whether tool use increases one's peripersonal space or one's

personal space? Jackson argues that some experimenters fail to demarcate between the claims

that tool use expands the boundaries of peripersonal space and that tool use expands the

boundaries of personal space. Jackson's concerns have direct relation to Fuchs and De Jaegher's

position, as one can question whether tool use expands our abilities through extension or whether

tool use expands our personal space through incorporation. I bring the reader's attention to this

debate, as it sets up the concern that Fuchs and De Jaegher do not distinguish between

'extension' and 'incorporation'.

I should be clear that I am not singling Fuchs and De Jaegher out for failing to distinguish

between these two terms. Helena De Preester and Manos Tsakiris (2009), for example, say this

distinction is often ignored in a number of different areas. Focusing on research on prosthesis

use, they say the psychological and neuroscientific literature on embodiment does not distinguish

between success in using tools and the success in using prostheses (De Preester & Tsakiris, 2009,

p. 309). As they say, "When we look at these two different classes of experiences, prosthesis use

and tool-use, it is not easy to maintain an adequate conceptual distinction between a tool that

extends the body, and a prosthesis that is incorporated into the body" (De Preester & Tsakiris,

2009, p. 309).They also say that a failure to distinguish between 'extension' and 'incorporation'

can be found in the traditional phenomenologists, e.g. Merleau-Ponty. Referencing the

Phenomenology of Perception, they cite a passage where Merleau-Ponty says the blind man's cane is "incorporated" (Merleau-Ponty, 1962, p. 139) and another where he says the blind man's cane is an "extension" (Merleau-Ponty, 1962, p. 153). Although few have distinguished between these terms, De Preester and Tsakiris (2009) claim that we need to for at least two reasons. The first is that experiments that focus on tool use and whether these tools are incorporated into the body (specifically in the area of prosthesis use) can benefit from further "conceptual clarity" (2009, p. 307). Secondly, the differences between extension and incorporation are "more profound than generally realized" (2009, p. 308). Since there is the need to distinguish between 'extension' and 'incorporation', Fuchs and De Jaegher could appeal to Evan Thompson and Mog Stapleton's (2009) 'transparency constraint'.

Following De Preester, Thompson and Stapleton set out to distinguish between 'extension' and 'incorporation' by focusing on tool use. Before they discuss the distinction between 'extension' and 'incorporation, Thompson and Stapleton say that we should also be aware of the distinction between two ways of experiencing the body: the body-as-object and the body-as- subject (2009, p. 29). The body-as-object refers to the way in which the body is experienced as an object. For instance, I perceive my body along with a number of objects in the world, e.g., my glasses, my table, my laptop and my coffee mug. My body occupies space and interacts with these various objects in my environment. However, I also experience my body-as-subject where my body acts as a way for me to experience the world. As Thompson and Stapleton say, I perceive *through* my hands (2009, p. 29). Since I perceive through my hands, they say, "the body-as-subject is transparent" (Thompson & Stapleton, 2009, p. 29).

Fuchs and De Jaegher may appeal to the transparency constraint to distinguish between 'extension' and 'incorporation'. Recall earlier in my exposition of Fuchs and De Jaegher's

concept of UI, they describe incorporation as the 'melting' or "being at one with the instrument" (2009, p. 472). My examples of playing the guitar and my friend feeling through the car are all successful accounts of 'incorporating' our respective objects. They also say the same of the blind man incorporating his cane. Through his motions, he can perceive through the cane and perceive any obstacles that may cause him to trip. The same could also be said in MI. If I am able to perceive through the other, then I have incorporated the other. Therefore, they might appeal to Thompson and Stapleton's transparency constraint within the context of their discussion of UI and MI.

Furthermore, like Fuchs and De Jaegher, Thompson and Stapleton do not restrict the body-as-subject to the body *qua* flesh. Rather, they say that inanimate objects and tools can also be incorporated into the body schema, which one can then perceive through. Thompson and Stapleton also appeal to Merleau-Ponty's example of the blind man's cane, focusing on the claim that with experience, the blind man begins to experience 'through' the cane to support their position further. If this is the case, they say the cane ceases being an object for him as soon as it becomes transparent (Thompson & Stapleton, 2009, p. 29). In other words, the cane is now experienced as body-as-subject.

Again, like De Preester, Thompson and Stapleton also discuss how patients adapt to prosthetic limbs as a way to describe the body-as-subject. In saying how the prosthesis can achieve this level of transparency, they reference the following first hand report of someone describing their experience with a new prosthetic limb:

> One of the major factors in my satisfaction with a new prosthesis is how little I feel it. That may sound strange, but to me, my prosthesis is an extension of my body. I can actually 'feel' some things that come into contact with it, without

having to see them… It must 'feel' as close to not being there as possible.

(Thompson & Stapleton, 2009, p. 29)

It is this person's successful ability to feel through (i.e., transparency) the prosthetic limb that Thompson and Stapleton claim demonstrates incorporation. Therefore, since transparency seems to be essential in establishing the body-as-subject, Thompson and Stapleton propose the 'transparency constraint' as a way of distinguishing between extension and incorporation. As they say,

For anything external to the body's boundary to count as a part of the cognitive system it must function transparently in the body's sense-making interactions with the environment. We also hypothesize that tools and aids that conform to transparency are incorporated into the neurophysiological body schema.

(Thompson & Stapleton, 2009, p. 29)

In explaining the transparency constraint further, Thompson and Stapleton offer the examples of Edward Scissorhands and Sweeny Todd to illustrate the difference between the two terms. Presumably, Sweeny Todd is an example of extension, as he uses objects that extend his ability as the demon barber of Fleet Street, e.g., scissors and a razor. Edward Scissorhands is presumably an example of incorporation, as his scissorhands act as prosthetic limbs, allowing him to engage in the world by perceiving through his scissors. In their words, "Sweeney Todd is an accomplished barber far exceeding his peers, but he may never experience the world through his scissors as Edward Scissorhands does" (Thompson & Stapleton, 2009, p. 29).

However, my worry is that the transparency constraint may not effectively demarcate between extension and incorporation. One could question whether the transparency constraint is meant as a necessary or sufficient condition. Reconsider their definition: "For anything external

to the body's boundary to count as a part of the cognitive system it must function transparently in the body's sense-making interactions with the environment" (Thompson & Stapleton, 2009, p. 29). Since this is fairly ambiguous, one could interpret it either way. If we interpret the transparency constraint as a sufficient condition[47], then the previous discussion of expertise and MG adds further support to De Preester and Tsakiris' (2009) concern about transparency. As presented earlier, experts develop a MG on an object, which might be described as developing a kind of transparency. The worry is that developing expertise may overpopulate incorporation. Let us use Thompson and Stapleton's example of scissors to illustrate my point.

As I stated earlier, I assume that Edward Scissorhands is their example of incorporation and Sweeny Todd as their example of extension. However, Sweeny Todd would be considered an expert barber by Dreyfus. This means, I assume, he has established a MG on his instruments whereby he does not have to think about such things as how to hold the scissors, how to hold the razor and so on. If Sweeny Todd develops a MG on his scissors, then he perceives through them. If he perceives through them, it appears as though he satisfies the transparency constraint. Therefore, Sweeny Todd's scissors are incorporated; not extended. Furthermore, unlike Sweeny Todd, I am not an expert barber, but I do use scissors often, e.g., cutting paper, cutting tags of clothes, and so on. In these situations, I, too, am an expert, as I simply take up the scissors to accomplish my goals without recourse to mental representations. The key is that I am an expert at my "local practice" and Sweeny Todd at his. Therefore, we are both experts at two different skills (granted his involves more skill). Nevertheless, we each develop our respective MGs, which means we perceive through our scissors. If the transparency constraint is a sufficient condition, then we all are examples of incorporation.

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[47] If X establishes transparency with the external object, then the object is incorporated.

A similar worry is also shared by De Preester and Tsakiris who question transparency as a sufficient condition of incorporation. As they say,

> The absence of explicit experience of the limb, or rather the experience that the artificial limb has become transparent, is a phenomenon well observed for original body-parts. However, this gives rise to the question as to whether this additional characteristic is sufficient for a prosthesis to count as 'incorporated'. A tool can also feel close to not being there; for example, during successful tool-use, the tool is 'ready-to-hand', unnoticed too. (De Preester & Tsakiris, 2009, p. 310)

However, if we interpret the transparency constraint as a necessary condition[48], then we may avoid overpopulating incorporation as every instance of incorporation would involve transparency, but not every instance of transparency involves incorporation. However, we would need another criterion or criteria in order demonstrate that although we have transparency, we do not have incorporation. For instance, De Preester and Tsakiris (2009) argue for body-ownership as the demarcation principle between extension and incorporation whereby only those objects that I regard as being a part of me count as incorporation. As they say, "the feeling of ownership that we have for our bodies clearly does not extend to, for example, the fork we use at dinner" (De Preester & Tsakiris, 2009, p. 312).

Nevertheless, body-ownership still faces some problems when we think about expertise. Here I point to the close connection many experts have with their tools or instruments. For example, recall that I claimed I was a guitar expert, as I can play some songs by allowing my fingers to find the appropriate notes. Body-ownership may accurately describe my relation to the guitar, as I do not regard the guitar as an essential part of me. However, recall Rory Gallagher's claim that his guitar is a part of him. The same could be said of Sweeny Todd: as an expert

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[48] If the object is incorporated, then X perceives through the object.

barber, he may identify, quite strongly, with his tools. Therefore, Sweeny Todd could also act as an example of incorporation; not extension.

In short, on one hand, the transparency constraint overpopulates incorporation, and on the other it is not that helpful. However, raising concerns about MI here prompts me to develop an account of a specific form of interaction between others that does not commit me to offer a potential solution to the debate distinguishing between 'incorporation' and 'extension' at this time. Chapter 6 develops a new concept I call 'intersubjective maximal grip' (IMG).

Integrating the debate about social understanding and expanding on Dreyfus' non-representational account of expertise, I show that IMG describes a way we interact with others by anticipating their behaviour without attributing propositional attitudes, which I use to supplement the interactionists' arguments against FP. The last section of Chapter 6 distinguishes IMG from Fuchs and De Jaegher's MI. Although IMG and MI both seek to describe dynamic, bodily interaction, IMG describes a more specific form of interaction whereby we coordinate our behaviour with others by recognising and responding to each other's optimal position. Ultimately, IMG ties the thesis together, as it supplements the interactionists' arguments against FP by addressing De Jaegher's call for a more developed account of 'social skill' (De Jaegher, 2009 p. 427).

Conclusion

Throughout this chapter I addressed issues pertaining to intersubjectivity in Dreyfus' account of expertise. I started with various critiques that claimed Dreyfus' account neglects various 'external limitations' as well as various individual differences that affect gaining

expertise. I then introduced Gallagher's argument that there are important endogenous intersubjective elements in embodied practice in general. With this in place, I discussed Selinger and Crease's discussion of the coach's MG and Fuchs and De Jaegher's distinction between UI and MI in order to show that Dreyfus' account of expertise (specifically his discussion of MG) has implicit intersubjective implications. I ended my discussion by pointing out the problem of failing to distinguish between 'incorporation' and 'extension'. I presented Thompson and Stapleton's transparency constraint as a possible way to distinguish these terms, but raised a concern that the transparency constraint fails when considering expertise. I concluded by saying that the next chapter will develop IMG as an alternative way to understand how we coordinate with others.

Chapter 7: Intersubjective Maximal Grip (IMG)

Recall the aim of this thesis is to supplement the PCs' arguments against FP by developing an aspect of social skill that is non-representational. Whereas Chapter 5 addressed objections to the Radical aspect of Dreyfus' account, Chapter 6 addressed objections to the intersubjective element. To address these objections, I started with Gallagher's argument that there are important endogenous intersubjective elements in embodied practice in general. The objective, then, of Chapter 6 was to expand on Gallagher's argument, which I did by discussing Selinger and Crease's example of the coach's MG and Fuchs and De Jaegher's distinction between UI and MI in order to show that Dreyfus' account of expertise (specifically his discussion of MG) has implicit intersubjective implications.

Building on the discussion from Chapter 6, this chapter, which also concludes this thesis, introduces 'intersubjective maximal grip' (IMG). Integrating the debate about social understanding and expanding on Dreyfus' non-representational account of expertise, I show that IMG describes a way we understand others and are able to anticipate others' behaviour without attributing propositional attitudes. Specifically, I show that IMG denotes ways in which we recognise and respond to each other's optimal positions in a given situation. In order to complete the chapter's goal, as well as the goal of the thesis as a whole, my discussion will be split into three parts.

The first section develops IMG by distinguishing between two skills: 'joint optimal position recognition' and 'optimal position recognition' whereby the former necessarily involves the reciprocal nature of recognising and responding to optimal positions, but the latter need not be reciprocal. The second demonstrates how IMG supplements many of the interactionists'

arguments against FP (e.g., embodiment, interaction, and the scope of FP). The third section

distinguishes IMG from Fuchs and De Jaegher's MI. Building on the issues against MI discussed

in Chapter 6, I propose that IMG is a more specific form of interaction between others. I start my

explication of IMG by describing how I discovered it.

Genesis of IMG

In the early stages of developing IMG, I narrowly avoided causing a car accident. While

returning home after driving my wife to work, I was consumed with thoughts about FP, Dreyfus'

account of expertise, and the relationship between the two and failed to recognise the driver next

to me who was trying to merge into my lane. I understand now that I should have accommodated

him, either by moving into another lane or slowing down to allow him to merge; however, I did

neither. At one point, the other driver rolled down his window and yelled, "Can't you see where

I'm going?!" The driver's words prompted me to rethink the intersubjective aspect of MG in

driving: whereas previous discussions of MG focused on the way an individual recognises and

responds to one's own optimal position, IMG describes a form of interaction between others that

involves the recognition and response to our respective optimal positions. In order to develop the

concept further, I describe two aspects of IMG. The first I call 'optimal position recognition'

(OPR) and the second I call 'joint optimal position recognition' (JOPR).

OPR & JOPR

To start, it should be noted that the interaction with others does not have to be reciprocal to count as an instance of IMG, as one agent can perceive another's optimal position in a given situation without the second agent perceiving the other's optimal position. For example, while in an art gallery, I can perceive my own optimal position and recognise another's optimal position and can form an anticipation of her future behaviour from across the gallery; this other person need not recognise my optimal position. For example, a coach recognises two optimal positions: her own and the player's optimal position. The player, however, need not recognise the coach's optimal position. Although they directly interact and various aspects of the interaction are reciprocal, their roles as player and coach need not be reciprocal. In other words, the coach recognises his own optimal position *qua* coach and the player's optimal position *qua* player, but the player need not recognise the coach's optimal position *qua* coach. I call this aspect of IMG 'optimal position recognition' (hereafter OPR). The other aspect of IMG, that I will develop in further detail is, 'joint optimal position recognition' (JOPR)[49]. OPR is central to JOPR, as I have to perceive and recognise another person's optimal position in order to coordinate with her. However, JOPR has an additional reciprocal component where the other person involved also recognises and responds to my optimal position.

Briefly stated, JOPR refers to how at least two people work together to achieve a goal (either a shared or a competitive goal) by recognising and responding to each other's optimal position in a specific situation. Like MG that describes the way the body is solicited to seek its optimal position in a given situation, JOPR describes the way in which at least two people recognise and respond to each other's optimal positions in order to achieve a shared goal. We are

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[49] I should note that this is not the completed discussion of OPR, as I use this concept later in the chapter to argue against another of Herschbach's critiques of the Interactionists' position against FP.

solicited by the other's optimal position to respond in either a cooperative or competitive way. It should be stressed that the central feature of JOPR is its reciprocal nature. In other words, I recognise and respond to your optimal position and you, in turn, recognise and respond to my optimal position. Perhaps the best way to develop this concept is to look at some examples in detail.

If one attends a crowded gallery, the number of people in the gallery is often the primary impediment to viewing a desired piece. Ideally, those in attendance will take this into consideration and work together to maximise the respective opportunities to view the art in question. This could involve a number of strategies, e.g., queue up to view a piece and view it for an acceptable amount of time before allowing the next to view it, or position a group of people in such a way that several could view it at once (as a relatively tall person, I could stand behind a shorter person, which would allow us both to view the piece of art at the same time). The crux is we would take into account our respective optimal positions and seek to maximise them in order to work together to achieve a shared goal, which is the essence of JOPR.

To make JOPR even clearer, I will now analyse and demonstrate that the following examples Adam Morton (2003) provides to illustrate cooperative action centrally involve JOPR. These examples are:

> You are playing tennis – doubles. You are near the net while your partner meets the ball. You can see one of your opponents preparing to reply, in a way that you haven't a hope of intercepting from where you are. You move out of the way, on the assumption that your partner is moving into position to meet the ball and return it through where you had been standing. (Morton, 2003, pp. 1-2)

You are driving along a narrow one-lane road, with a ditch on one side and a stone wall on the other. Another car is approaching from the other direction. Both cars slow down slightly, realising that there is not room for both. There is an easily visible widening in the road, nearer you than the other car. You speed up to get to it, the other car speeds up to pass by you while you are in it, and both pass smoothly by each other. (Morton, 2003, p. 1)

Someone is helping you move a table through a narrow doorway. As the door approaches he shifts his grip on the legs in a way that would make sense if the plan was to stick the legs round the corner to the right. You shift your grip accordingly. When you get to the door he shifts again, the other way round, and begins to rotate the table as if the legs were going round to the left. You have to either re-shift your grip or overcome his turning by turning the legs hard in the other direction. (Morton, 2003, p. 14)

The presence of MG in Morton's tennis example is rather explicit, as he directly states that you recognise you are unable to intercept the incoming ball from your position. However, arguably, the more important aspect of this example for the purposes of this chapter is that you also recognise *the other's optimal position*, as you can see that the other can return the ball if you were only to get out of the way. I say this is arguably the most important part for the chapter as it demonstrates that you perceive more than just your optimal position in a given situation. Recognising and responding to another's optimal position is evident in Morton's example when you could see that your partner could return the serve if you moved out of the way. Assuming the partner also recognised that she could return the serve if you moved out of the way and acted

accordingly, the cooperation between you and your partner demonstrates the reciprocal aspect in JOPR: both parties working together by recognising and responding to each other's respective optimal position in order to achieve a shared goal.

Morton's car example also exemplifies JOPR. As Morton states, both you and the other driver slow down, as both perceive the road is not wide enough for both cars to pass. In order for both cars to cross that section of road, one must pull into the wide section of the road to allow the other to pass. You recognise that your optimal position is to reach the wide section in the road first, as you are closer, which also involves perceiving that the wide section is not the other driver's optimal position, as the other driver is farther away. The other driver seemingly recognises this as well as he waited until you reached the wide section before continuing on. This example of cooperative action demonstrates JOPR as both drivers recognised and responded to each other's optimal positions; each formed an expectation that the other would cooperate in order to achieve the shared goal at hand.

Lastly, the presence of JORP in the table example is illustrated in the discussion of how the respective grips indicate the direction of how to move the table. As the example states, the person's initial grip indicated that the table should be moved by sticking the legs round the corner to the right. From this, you "shift your grip accordingly". This, I argue, demonstrates JOPR. Your partner's grip solicited a specific response in you to move the table around the corner cooperatively. In other words, your partner's grip indicated a specific optimal position the other person will seek, which meant that in order to move the table successfully around the narrow doorway cooperatively, you have to "shift your grip accordingly". Therefore, the example demonstrates the reciprocal recognition and response to optimal positions.

Given the discussion of the concept and the various examples that illustrate IMG, it should also be noted that IMG further supports the argument to make the implicit intersubjective aspect of Dreyfus account more explicit. First, recall the ubiquitous example of developing one's MG with a tennis racket - the expert tennis player's experience, "is more like one's arm going up and its being drawn to the appropriate position, the racket forming the optimal angle with the court" (Dreyfus, 2002a, p. 379). Although this example does not explicitly state the intersubjective elements to MG, but certainly playing tennis is not a solipsistic activity.

For example, we generally learn how to play tennis from an instructor, in which case the coach helps us develop our MG by giving us advice and helping us find these optimal positions. Furthermore, as discussed later in this chapter, since each tennis player will have different optimal positions, the coach uses her practical know-how to help the learner develop his optimal position. Furthermore, one's MG will also vary depending on one's opponent and social situation, e.g., if I am an expert tennis player matched against a beginner, I may not play as forcefully as I would if I played against another expert. Therefore, my optimal position will be affected. Moreover, my MG will be affected if I am playing in a tournament, an exhibition, or simply training, e.g., I may feel more pressure playing in a tournament than an exhibition, so I may play more intensely.

With this brief summary of IMG, I am now in a position to draw some tentative conclusions about IMG. First, IMG is central to being a 'social expert' and applies to a wide range of embodied activities. To be clearer, I mean that a central aspect of being a 'social expert' is the ability to coordinate with others in a wide variety of social interactions by recognising and responding to each other's optimal positions.

Now that I have given a brief explanation of what IMG (including JOPR and OPR) involves, I will now apply this concept in order to supplement the interactionists' arguments against FP, which is the goal of the thesis.

Supplementing the Interactionists' Arguments with IMG

In order to show how IMG supplements the interactionists' arguments in a systematic way, I divide the following into several subsections corresponding to various positions and arguments discussed in the previous chapters of this thesis. For instance, I start by showing how IMG supplements the interactionists' argument against the supposition that mental states are hidden. Specifically, I show how IMG can add to the interactionists' discussion of intercorporality as well as their emphasis on interaction. Thirdly, grounding IMG in Dreyfus' account of skill acquisition complements Hutto's argument that social understanding is primarily a matter of know-how. Within this section, I also show how IMG supplements Gallagher's argument that projecting ourselves to the position of the other only informs me of what I would do in that situation; it does not sufficiently address how we understand others.

Fourthly, I show how IMG furthers Ratcliffe's argument that norms, roles and functions in everyday situations are often sufficient for understanding another's behaviour. Fifthly, I show how IMG describes a way of understanding another's future behaviour without deploying FP. Although I did not spend a lot of time in chapter 2 discussing the interactionists' respective positions on prediction, Gallagher (2001) has critiqued the proponents of FP for narrowing social understanding to just two functions: explanation and prediction. For instance, he argues that the

proponents of FP neglect to discuss the role of evaluation, which is distinct from explanation and prediction[50]. Adding to this objection to FP's narrowness, I will show how IMG accounts for a way of anticipating another's future behaviour without the attribution of beliefs or desires. I now start with the interactionists' account of embodiment.

Embodiment

As discussed in chapter 1, several interactionists oppose the proponents of FP's assumptions that mental states are hidden and that the central way to understand someone is to attribute propositional attitudes to his behaviour. A common counter to these assumption is 'direct perception' (e.g., Gallagher 2001, Ratcliffe 2006, and Krueger 2012), which argues that we need not infer the mental state 'happiness' from someone's bodily behaviour, as we simply see that the person is happy: his happiness is present in his behaviour, not behind it. In this sense, the interactionists advocate a kind of 'bodyreading' rather than 'mindreading'. I will now demonstrate how IMG supplements the interactionists' argument against the supposition of hidden mental states by briefly discussing Zahavi's example of two cobblers cobbling a street, which he uses to undermine FP.

The example states that one worker lays the stone and the other knocks it into place. Each worker, then, "is related to the other in his activity and comportment" (Zahavi, 2006, p. 37). This example is then used to counteract FP, as he says in further detail:

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[50] As Gallagher's states, our everyday interactions with others rarely involves explaining others' actions in terms of "causal mentalistic" terms (2001, p. 95). Most of the cases are matters of "interactions and evaluations" (2001, p. 95), which refers to a pre-theoretical, embodied capability that most three-year olds have already developed through pragmatic understanding.

When one worker understands the other, the understanding in question does not involve grasping some hidden mental occurrences. There is no problem of other minds. There is no problem of how one isolated ego gets access to another isolated ego. Rather both workers understand each other in virtue of the roles they play in the common situation. (Zahavi, 2006, p. 37)[51]

To show how IMG can add to this example, I will first show how it exemplifies Dreyfus' account of skill acquisition. For instance, the fluidity of the cobblers' actions without the need to attribute mental states suggests that the cobblers have developed their actions in an intuitive, responsive way. More importantly, while looking at this example with IMG in mind, we see that both cobblers are able to understand and anticipate each other in virtue of recognising what the other's optimal position is in the roles they play and anticipates that the other will seek this position. In this way, the cobbler example is similar to Mensch's example of reaching for a glass of water, which was discussed in chapter 4. When reaching for a glass of water, one must make a number of necessary anticipations, e.g., the shape, distance, and applying the appropriate amount of strength. Dreyfus would say this further describes how one accomplishes a MG: a central component of being an expert. The same elements are present in the cobbling example, but with one important addition: anticipating the other cobbler's actions. In this process, each agent is solicited by the other's optimal position in order to respond and cooperatively cobble the street.

IMG further supports the interactionists' argument against hidden mental states as it further elaborates on a feature of intercorporality not previously discussed by the interactionists: the way in which two embodied agents recognise and respond to each other's optimal positions in a given situation. As discussed in chapter 6, like Gallagher, Fuchs and De Jaegher (2009) start

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[51] Although this example does emphasise how a common understanding of a shared situation regulates interaction, the example also emphasises body-reading; the two are not mutually exclusive.

their critique against FP using the concept of intercorporality by first explaining several key

presuppositions and elements of FP. The first presupposition is what Fuchs and De Jaegher call

the 'Inner world' hypothesis (2009, p. 467). Since the proponents of FP (both theory-theorists

and simulation theorists) claim we infer mental states to understand someone's behaviour, Fuchs

and De Jaegher argue this sets up a "one-way" or "unidirectional" research paradigm whereby

social cognition is "localised" in the operations of the brain (Fuchs & De Jaegher, 2009, p. 467).

In response, they argue that social understanding is primarily based on intercorporality, which

means social understanding is primarily an interactive activity between two embodied agents

(Fuchs & De Jaegher, 2009, p. 482). IMG describes an aspect of intercorporality not previously

discussed: the way in which we recognise and respond to our respective optimal positions in a

given situation.

Interaction

As discussed in chapter 2, the interactionists also disagree with the stance the proponents

of FP take towards others. For instance, Ratcliffe identifies the proponents of FP's stance as:

"Interpersonal understanding is best construed in terms of the detached observation of person B

by person A" (2007b, p. 22). Hutto concurs and refers to FP's detached stance as a "spectators'

sport" (2004, p. 565), as the proponents of FP assume we are at a "theoretical remove from

others" (Hutto, 2004, p. 549). In response, the interactionists raise two similar, yet distinct,

arguments regarding the stance taken towards others. The first is that the proponents of FP

mistakenly assume our primary mode of understanding others is from a third-person

observational stance and neglect the second-person perspective. The other is that the proponents

of FP mistakenly characterise the stance taken towards others as an impersonal stance.

However, before I explain how IMG adds to the interactionists' arguments in favour of

interaction, I will address the potential objection that OPR, specifically, does not support the

interactionists, as OPR is observational in nature. For instance, as discussed in chapter 3,

Herschbach argues that the interactionists' claim that all cases of FP are off-line and all cases of

on-line social understanding are non-mentalistic, which I will now address. To begin, we need to

be clearer on what 'off-line' means, as there are at least two ways one could interpret 'off-line'

as it applies to social understanding.

First, we could understand 'off-line' as involving reflection, e.g. "I wonder why she did

that?" Alternatively, we could understand 'off-line' as involving disengagement/observation.

Distinguishing between these two understandings of 'off-line is important, as I could observe a

woman entering a pub from across the street, but this observation alone does not entail that I also

reflect on her behaviour[52]. However, if we understand 'off-line' under the second interpretation,

then Herschbach could argue cases of OPR are off-line, as, unlike JOPR, it is primarily based on

observation. Recall the breakdown of Herschbach's argument from chapter 3:

a) According to the interactionists, FP is used infrequently.

b) This is because the interactionists restrict FP to off-line contexts and argue that
   social understanding is on-line and non-mentalistic.

c) However, FP can come in on-line forms, e.g., on-line false belief understanding.

d) Therefore, FP is more widespread than the interactionists claim.

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[52] I would like to thank Mitchell Herschbach for making me aware of this distinction through personal correspondence.

If OPR is off-line and all off-line cases of social cognition involve FP (premise b), then OPR entails FP. The first step to address this potential counter argument from Herschbach is to show how premise b is false. To do so, I argue that observation does not entail FP by showing that cases of direct perception can be off-line (in the sense of involving observation), but not involve mental state attribution[53]. This will add support to the claim that OPR, which is primarily observational, does not entail mental state attribution to anticipate what another person will do in seeking her optimal position in the given situation.

I begin the argument that observation does not entail FP by calling into question the claim that all cases of observation equate to off-line understanding. My justification is based on Gallagher's work on direct perception. Although Gallagher explains direct perception in a number of different articles (2001, 2005, 2007a, 2007b, 2009a, 2009b, 2011), it is not clear that he ever introduces a restriction on the concept, i.e., a point when direct perception ceases to function and we switch to mentalistic understanding. For instance, return to the example of a woman entering a pub. If I directly walk by this woman as she enters the pub, then Herschbach would say I engage in on-line cognition, but if I observe the woman from across the street, Herschbach would say I engage in off-line cognition. However, Herschbach's account presupposes that there is a measurable distance between two agents when one deploys mentalistic understanding, e.g., we engage in non-mentalistic understanding up to twenty meters; after which we deploy mentalistic understanding.

A more accurate interpretation is that direct perception works in cases of distant observation as well. For example, I can observe that the couple in my apartment building's parking lot is happy via direct perception. The physical distance between the couple and me does

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[53] For a detailed discussion of how Ratcliffe and Gallagher's respective positions undermine premise b, see Capstick (2013).

not seem to affect whether I employ direct perception to understand their behaviour[54]. Although Gallagher says that direct, face-to-face interaction is our primary way of understanding others, it is consistent to say there are "different degrees of detachment" from our interaction with others (S. Gallagher, personal communication, February 20, 2012). This point is illustrated in Ratcliffe's example of how email exchanges do not automatically imply FP. Like Gallagher who would say that there are different degrees of separation from interaction, Ratcliffe argues that even email exchanges utilise aspects of interaction. According to Ratcliffe,

> These [email exchanges] need not be described in terms of an ability to infer internal mental states on the basis of observed evidence. They will still incorporate some degree of affective engagement and when such exchanges involve genuine personal understanding, rather than mere information exchange or pre-scripted professional performances, they tend to rely heavily on already established contexts of interaction. (2005, p. 225)

Therefore, Gallagher's position can account for cases of off-line cognition that are non-mentalistic, which undermines Herschbach's premise that all phenomenological critics argue social understanding is on-line and non-mentalistic (i.e. premise b). Furthermore, OPR, which Herschbach would consider off-line, is non-mentalistic, as it is primarily concerned with the anticipation that others will seek out their respective optimal positions in a given social situation without the need of attributing propositional attitudes. As I will show in the section on prediction, this anticipation is primarily concerned with non-mentalistic features.

Next, I show how IMG adds to the claim that social understanding is primarily a matter of practical reasoning.

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[54] Leaving aside the fact that if the couple were so far away I could not perceive their facial expressions.

Practical Reasoning

In introducing NPH as a new alternative in the debate about social understanding, Hutto emphasises the role of practical reasoning in social understanding. For example, Hutto argues engaging in these narratives introduces mental states (such as 'beliefs' and 'desires') to children as well as how important situational and contextual factors play a role in social behaviour. As he says, "Through shared encounters with FP narratives children become familiar with the forms and norms of giving and asking for reasons, knowing how and when these apply" (2008b, p. 178). To further the claim that NPH is a matter of practical reasoning, Hutto argues that, unlike the orthodox accounts (specifically TT), children do not develop FP competence as a matter of following a specific set of rules. Moreover, even if there was such a rule, we would still face the problem of knowing when to apply the rule given the wide variations in such stories, which, as Hutto says, is "necessary for the skilled application of folk psychology" (2007, p. 61). Again, my account of IMG can further add to this discussion.

For example, recall the example of listening to one of my friend's reading *Little Red Riding Hood* to his daughter as a bedtime story discussed in chapter 3. In this instance, they were discussing the scene where Little Red Riding Hood was questioning the Big Bad Wolf who was dressed in Little Red Riding Hood's grandmother's clothes (e.g., "Grandmother, what big teeth you have"). My friend's little girl asked her father why Little Red Riding Hood was not scared of the wolf. My friend contextualised the scene by explaining further that Little Red Riding Hood did not immediately know the Big Bad Wolf was in fact a wolf, as he was in disguise. By explaining and emphasising the contextual factors like this, my friend furthered Hutto's point that developing FP competence through these narratives is not a static event.

IMG can add to this discussion by having the child engage in appreciating the characters' optimal positions. For instance, asking why Little Red Riding Hood was not scared of the wolf shows a grasp of IMG – if Little Red Riding Hood was within the wolf's optimal position (to eat her), then she should have been frightened (as a direct response to the wolf's optimal position). Further explaining the context of the story would allow my friend to further elaborate on various IMG features. For example, if I perceive the person sitting in the bed is my grandmother, then I am likely to be solicited in a favourable way. However, perceiving the person in the bed as a wolf would likely solicit the opposite response.

Moreover, being grounded in Dreyfus' account of expertise, recognising and responding to another's situation is, in principle, a matter of know-how. Like MG, which is highly contextual, IMG is also highly contextual – arguably more so as one's MG is determined by different personal and environmental variables that alter one's optimal position in a given situation. IMG (specifically JOPR), on the other hand, has the added dynamic variable of the interaction between two embodied agents. Therefore, not only must my optimal position be affected by my personal traits (height, weight, and so on) and by environmental factors (weather conditions, social venue, and so on), but it is affected by another person who also faces these variables. Cooperation based on these factors, then, cannot be sufficiently captured by a decontextualised rule, as any attempt would be useless/unhelpful.

Furthermore, arguing that IMG is a matter of know-how adds to Gallagher's argument against explicit ST: if I project myself in the position of other, I do not understand the other person (2007b, p. 355). For instance, Goldman might claim that I project myself in the position of the other person in order to understand that person's optimal position in a given situation,

which is problematic, as it does not provide an understanding of the other person. In Gallagher's words,

> In other words, given the large diversity of motives, beliefs, desires, and behaviors in the world, it is not clear how a simulation process based on my own relatively narrow experience (or relatively unique circumstance) can give me a reliable sense of what is going on in the other person's mind, or in their behavior. (2007b, p. 355)

Put in another way, ST as projection only understands the other *qua* self. However, the goal of social cognition is to understand the other *qua* other, which IMG accomplishes. Recall Morton's example helping a friend move a table around a doorway. In this case, understanding the other *qua* self rather than the other *qua* other can be disadvantageous, e.g., what if one mover is considerably more physically fit than the other? If the more physically fit mover assumes (via projection) the other mover has the same abilities and will perform in the same way, they are more likely not to cooperate and successfully move the table. Rather, if one deploys IMG, then one recognises and responds to specific individual aspects of the other, increasing the likelihood of cooperation.

Additionally, we cannot formulate understanding another's optimal position in the form of a rule, as we would face two problems. First, as Hutto says about FP rules, even if we were to capture IMG in the form of a rule, there is still the problem of knowing how to apply it. If one wants to argue that this can be answered by appealing to another rule on how to apply certain rules, then one faces Ryle's Regress Argument. Second, if we try to formulate such a rule, following Gobet and Gauker, such a rule would be either too vague or too specific and ultimately not helpful.

The following section addresses how IMG further restricts the scope of FP.

Scope

In detailing Ratcliffe's position against FP, I briefly presented his argument against the scope of FP, arguing that "FP is not needed at all in some social situations and that its relevance to others is debatable" (2007a, p. 224). In making this argument, he showed that it is often enough to appeal to a shared understanding of how various environmental factors function. In such situations, we could "off-load" much of the cognitive burden on our social environment (Ratcliffe, 2006, p. 44). For instance, knowing how escalators, ticket machines, platforms, trains and signs function is often enough in such a social situation. We do not need to attribute beliefs and desires to anyone. As Ratcliffe says, "Mental states do not need to be assigned, as the assumption that others will do 'what one does' in this kind of equipmentally configured environment is usually sufficient" (2007a, p. 231). I will now show how IMG further supplements Ratcliffe's argument that "situations are reasons".

In starting this argument, Ratcliffe focuses on the theory theorist's claim that the "power" of FP stems from its ability to describe the interconnectedness of various mental states. As Ratcliffe summarises, "Given a certain set of beliefs and desires, one can reliably infer various other beliefs and desires, all of which stand in systematic relations to each other and to behaviour" (2007b, p. 96). To begin his counter, Ratcliffe says that the relations between various "roles, norms, and functions" have a similar systematic structure. If that is the case, then these social situations can replace FP as the way of understanding others. For example, Ratcliffe

(2007b, p. 97) offers several examples of using various features of a situation as reasons for someone's actions:

'Why did she turn left?' 'The road to the right is one-way.'

'Why is he in a hurry?' 'His bus is about to leave.'

'Why did he leave the pub?' 'To go to the cash dispenser.'

'Why isn't she coming with us?' 'The VIP entrance is over there.'

As Ratcliffe notes, the features of the situation itself (either in the form of a norm, role or function) make the attribution of mental states unnecessary. IMG further complements Ratcliffe's argument here, as we can appreciate how others are solicited by norms, roles and functions in order to achieve an optimal position. For instance, while stopped at a red light in traffic on our way home, my wife and I noticed a woman in the distance running towards the crosswalk. Following her gaze, we also noticed a bus close to the intersection that was stopped to allow several people to board the bus. During this brief time, my wife and I were alternating between the bus and the running woman in the anticipation of whether or not she would reach the bus before it drove away. We never once thought about the woman's mental states; rather, we understood that her running was in virtue of the bus that was about to leave. IMG, specifically OPR, adds to this example, as it highlights we understood her actions in virtue of how such norms and rules solicited a specific response from her, e.g., the impending departure of the bus created a solicitation in this woman that she had to seek out immediately. IMG, then, complements Ratcliffe's argument as these respective norms, roles and functions solicit a person to act in a particular way to achieve their respective optimal positions.

Lastly, I discuss how IMG helps understand another's future behaviour without the attribution of propositional attitudes.

Prediction

Throughout my presentation of FP in chapter 1, I explained that although most proponents of FP agree that social understanding involves explaining and predicting others' behaviour, these functions are not treated equally. Rather, as Andrews states, according to the proponents of FP, "the *primary* function of folk psychology is the prediction of behaviour" (2007, p. 191). Some even make the stronger claim that without FP's predictive power, we would not be able to understand each other, e.g., Dennett[55]. I also explained that FP is used to understand a variety of predictions. For instance, Andrews describes how FP is used to predict that someone will duck if you throw a brick at him (Dennett, 1998) and to predict that you will arrive on the 3 p.m. flight if you say you'll arrive on the 3 p.m. flight (Fodor, 1989). FP is called upon in both of these cases due to its simplicity. However, stemming from Ratcliffe's argument against the scope of FP, IMG denotes a way we understand another's future behaviour without employing FP. Consider the following illustration of Wayne Gretzky, who was arguably one of the best hockey players of all time.

As some commentators noted, Gretzky played as though he had "extrasensory perception" where he would "sense" where other players were more so than visually perceiving them (Schwartz, n.d.). In an explicit reference to intuition, Gretzky himself said, "I get a feeling about where a teammate is going to be" (Schwartz, n.d.). Furthermore, "A lot of times, I can turn and pass without even looking" (Schwartz, n.d.). First, this demonstrates further support for Dreyfus' account of expertise. Here the focus should be on Gretzky's emphasis on 'feelings' and

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[55] In his words, "Without [FP's] predictive power, we could have no interpersonal projects or relations at all; ... we would be baffling ciphers to each other and to ourselves" (Dennett, 1998, pp. 97-98).

'intuition' as it applied to his skillful abilities, rather than relying on a propositional thought or rule about the game or by attributing propositional attitudes to the other players (either his opponents or teammates). Gretzky's first hand report about how he based his decisions on 'intuition' rather than a form of calculative rationality. More importantly, Gretzky's description involves IMG, specifically JOPR.

Focusing on Gretzky's comment about "feeling" where his teammates *were going to be,* it should be stressed that one's optimal position in a given situation is inextricably linked to the future, as one *seeks* the optimal. In achieving the optimal position, we find the temporal aspect discussed throughout several chapters of this thesis, e.g., Husserl's notion of protention exemplified by Mensch's example of reaching for a glass of water and by Rodemeyer's claim that motion requires protention[56]. In Gretzky's case, he passed the puck to his teammate's optimal position, a position his teammate is not currently in, but will seek. This implies that Gretzky recognised not only his position, but his teammate's as well.

As I have said throughout, IMG seems to play a role in cooperative examples, but it also applies to competitive examples. Although it could be argued that competition involves explicit forms of strategy, which may include predicting another's behaviour by attributing mental states, I will demonstrate that IMG also applies in cases of competition and this need not involve FP. Take the following example Ratcliffe uses to show that we do not employ FP in strategic interactions such as playing football.

> In the 1996 European Championships, Paul Gascoigne scored the second goal for
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> England against Scotland by sprinting forward without support, lobbing the ball
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> over the head of Scottish defender Colin Hendry, running round him and then

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[56] Recall Rodemeyer's explanation that "motion is in itself always one step ahead of the sensation. I must be intending motion just prior to intending the feeling in order to be moving and thus facilitating the feeling" (2003, p. 136).

kicking it into the corner of the net past goalkeeper Andy Goran. (Ratcliffe 2007a, p. 232)

Ratcliffe puts forward several arguments that this example does not involve FP, one of which is that Gascoigne's actions are consistent with non-representational action exemplified in Dreyfus' account of expertise (2007a, pp. 232-233). In addition to arguing against FP, this example beautifully illustrates how IMG works in competition. However, it should be stressed that the optimal position Gascoigne sought is slightly different in nature from the optimal position he would have sought if he, Hendry and Goran worked together for a shared goal. As Ratcliffe emphasises, the example illustrates a strategic situation whereby "the preferred outcome for Gascoigne depended upon others not getting what they wanted" (2007a, p. 233). If they were working together to achieve a shared goal, the three persons involved would perceive and respond to the respective optimal position to achieve the same goal. However, since Gascoigne's goal depended on them "not getting what they wanted", he directly perceived and exploited their 'less than optimal positions', i.e., their 'weak points'. In Hendry's case, lobbing the ball over his head put the ball in a position where Hendry could not intercept it. In Goran's case, kicking the ball in the corner of the net put it in a position where he could not prevent it from entering the net. Whereas IMG in cooperative activity involves 'recognising and responding *to'* another's optimal position, IMG in competition involves 'recognising and responding *against'* another's optimal position.

In short, I have shown how IMG complements various arguments made by the interactionists against the proponents of FP. This leads me to the third and last section of this chapter: distinguishing between IMG and MI. To do so, I start by pointing out that MI is meant to add to the concept of participatory sense-making by describing the phenomenon of bodily

interactions. From here, I appeal to Gallagher's argument that there are two problems of intersubjectivity, participatory sense-making and social cognition, and point out how the former is more general in nature and the latter more specific. I then introduce IMG as a way of bridging these two problems by describing a specific way we coordinate with others, which helps us understand others. I begin with a presentation of MI.

Distinguishing IMG from MI

I begin my argument that IMG is distinct from MI with Fuchs and De Jaegher's (2009) claim that their primary aim is to describe the interaction between agents through the following two perspectives:

1. A dynamical agentive systems point of view, which they describe as a "coordination process between intentional and embodied agents" (Fuchs & De Jaegher, 2009, p. 466).

2. A phenomenological approach (i.e., mutual incorporation), which they describe as "the reciprocal interaction of two agents in which each lived body reaches out to embody the other" (Fuchs & De Jaegher, 2009, p. 466).

As they state, both perspectives add to the concept of PSM, which they define as, "the process of generating and transforming meaning in the interplay between interacting individuals and the interaction process itself" (Fuchs & De Jaegher, 2009, p. 466). It must be stressed that Fuchs and De Jaegher are clear in saying that these two perspectives are *not different*. Rather they are "two sides of *the same process* [my emphasis]" (Fuchs & De Jaegher, 2009, p. 466).

Whereas the dynamical agentive systems point of view regards the coordination as "exhibiting an inherent and 'visible' intentionality and as being related to each other in a meaningful way", MI describes the "subjective experience of the process" (Fuchs & De Jaegher, 2009, p. 467). I stressed the claim that both perspectives are of the same process, as this makes MI vague. Allow me to clarify.

If we interpret 1 and 2 as describing separate processes, then we might be tempted to conclude that the first is the more general approach whereas the second denotes a specific form of social interaction. Another possibility would be to outline when MI is present and when it is not. However, Fuchs and De Jaegher do neither. Rather they claim that MI appears in "different degrees of coordination and synchronisation" (2009, p. 474). For instance, they claim in the more "marked cases" of MI, we may become "fascinated" by the other. Using the example of observing an acrobat, they say, "Our lived body reaches toward and 'conjoins' with the acrobat's swinging movements—we may even be prompted to co-movements. For a moment, we might not even distinguish his movements from our own any more, and the ambiguity of incorporation gets lost" (Fuchs & De Jaegher, 2009, p. 474). On the other end of the spectrum, they say that, "Our perception of others *always* [my emphasis] includes a proprioceptive component that connects their bodies to our own" (Fuchs & De Jaegher 2009, p. 473)[57].

In short, saying that these perspectives describe the same process, MI denotes *any* and *all* forms of bodily interaction between others. As they say, MI refers to the "reciprocal expansion of the lived bodies of the participants," and that it can be "experienced in intensive encounters with others but, in a more subtle way, plays a role in *any* social interaction [my emphasis]" (Fuchs & De Jaegher, 2009, p. 482).

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[57] Although they do not mention it by name, I assume they refer to mirror neurons where the simple observation of another's behaviour induces a similar neural response in my body.

Claiming that MI denotes any form of bodily interaction, however, makes the concept somewhat vague and possibly uninformative. To further clarify my point, consider the following two examples from Fuchs and De Jaegher's article:

> For instance, as a skilled tennis player, I not only incorporate the ball and its trajectory but also my opponent's position, posture and movements. I feel the thrust and direction of his stroke as well as the momentum the ball receives, and with this, my own body's reaction is already being prepared. Here, my lived body is also in an ambiguous state, fluctuating between the incorporated body of the other and my own embodied position. (2009, p. 474)

> A similar phenomenon is found in eye contact where the gazes of both partners enter into an often intensive dialogue, or even a 'fight of gazes'. Just like limbs, the gazes act as extensions of the subjective bodies and form a system of mutual incorporation. I may feel the other's gaze as a pull, a suction, or also as an arrow that hits me and causes a bodily tension; I may feel his gaze right on my face (e.g. when blushing with shame); I may be fascinated by the gaze or withstand it, 'cast it back' etc. My reaction to the other's gaze already influences his next action. (2009, pp. 474-475)

Fuchs and De Jaegher claim both these examples are cases of MI whereby they both describe how each participant's action influenced the other's, creating a feedback/feedforward cycle. However, differentiating both examples by the degree to which one's body is affected by the other is not that helpful in understanding the particular differences between these examples. For instance, granted playing tennis and catching the gaze of another involves a form of

interaction and response, but we would need more specific information than the degree to which one's body is affected in order to properly differentiate between these two examples. If this is the case, then MI may not be that helpful in understanding others in specific situations.

Hutto (2009) raised a similar critique of De Jaegher's (2009) position. As I briefly mentioned in Chapter 2, De Jaegher critiques Gallagher's account for neglecting the role of interaction and his account of direct perception that it is susceptible to a "cognitivist hijack" (2009, p. 535). In her words, "Yes, we have the experience of a direct grasp of others' intentions and feelings, the cognitivist can say, and this is because of the very fast processing going on inside the head" (De Jaegher, 2009, p. 535).

De Jaegher's solution is to give more attention to the phenomenon of interaction, which does not involve distinct individuals trying to figure each other out. As she states in more detail,

> Whereas traditional approaches centre on how individual cognisers interpret an other's behaviour, the proposal here is to focus on the process of interacting, which can be analysed as a dynamical system spanning the individuals involved. Such an analysis may involve investigating patterns of movement or of language use across individuals during an interaction – i.e. not patterns of movement in one person and in the other, but patterns characteristic of the system as a whole as it unfolds in time. (2009, p. 535)

In response, Hutto (2009) targets the ambiguity of De Jaegher's positive position. Hutto (2009) starts this argument by claiming that a complete account of social understanding requires understanding what specific individuals and their subpersonal processes/mechanisms are doing in the type of interaction she advances (Hutto, 2009, p. 543). As he states in more detail,

But to adequately challenge the dominant proposals the notion of 'sense making', 'significance for', etc. – on which the De Jaegher leans – would need much more explication and theoretical grounding. For example, we are told that coordination involves the non-accidental correlation between the behaviours of two or more systems – those that can be coupled in a sustained way. But we are not given details about the mechanisms that sustain such coupling (again any or all of the usual suspects could bid to play a role here). Barring that we are owed a story about how we could do without them. (Hutto, 2009, p. 543)

I would add MI is somewhat vague as it was originally introduced to describe a very general feature of our interaction with others. Here I refer to Drew Leder's (1990) original discussion of mutual incorporation[58].

According to Leder (1990, p. 94), mutual incorporation describes the phenomenon of co-existing subjectivities, which he develops in contrast to Sartre's position. Leder focuses on Sartre's example of the voyeur being caught looking through a keyhole to demonstrate Sartre's position on the self-other relationship. In Leder's words, "Suddenly he hears footsteps and apprehends his own position through the Other's look. His own project is truncated; he now stands pinned to his place, exposed and ashamed. Insofar as the Other is a subjectivity, the voyeur's own subjectivity is undermined" (1990, p., 93). Where Sartre's description of the relationship between self and other truncate (to use Leder's term) our possibilities, mutual incorporation, on the other hand, supplements our possibilities (1990, p. 93).

The example he uses to describe mutual phenomenon is presented below:

I am walking in the forest with a friend. As we stroll we point out various things to one another: the colour of the leaves, a passing bird, the changing of the

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[58] Fuchs and De Jaegher cite Leder's discussion of mutual incorporation as a further read (2009, p. 472).

> seasons. I adjust to my friend's pace and she to mine. I find myself enjoying
> things more and in a different way than when I had come alone. We speak of
> other topics beside the scenery: of politics, mutual friends, movies each have
> seen. But then we lapse into silent enjoyment of our surroundings. (Leder, 1990,
> p. 94)

The crux for Leder is that the two people walking in the forest enhance or extend each other's perspective on the world. He uses mutual incorporation to oppose the Sartrean position that the relationship between self and other is essentially one of conflict, as mutual incorporation describes the way in which self and other enrich each other's experience. In Leder's words, "In mutual incorporation, each person's capacities and interpretations find extension through the lived body of the Other" (1990, p. 94). Therefore, Leder's use of the term 'mutual incorporation' refers to a general way in which we, as coexisting subjects, extend or complement the way in which we experience the world, not a specific form of interaction. It might be the case that this general approach is carried over to Fuchs and De Jaegher's use of MI as well.

However, Fuchs and De Jaegher could respond and argue that MI is not meant to answer the question being asked of it. In order to clarify what I mean, consider Gallagher's (2009b) argument that there are two problems of intersubjectivity, i.e., (PSM) and social cognition (SC). According to Gallagher, although PSM is closely related, it is different from the problem of SC.

> Making sense of the world together (in a social process) is not the same thing as
> making sense of another person within our interactive relationship, even if that
> interactive relationship is one of participatory sense making. One process may
> contribute to the other; but they are different processes. (Gallagher, 2009b, p. 298)

To further clarify his position, Gallagher distinguishes between PSM and SC by looking at the respective questions they set out to answer. Whereas PSM sets out to address how we "constitute the meaning of the world," SC addresses "How do we understand another person" (Gallagher, 2009b, p. 297)? From Gallagher's description of the differences between PSM and SC, we can see that PSM is the more general problem whereas SC is the more specific problem. Therefore, Fuchs and De Jaegher's (2009) account of MI, perhaps, is not meant to address the questions of distinguishing between various cases of specific forms of interactions. In this regard, IMG may be more helpful, as IMG bridges both questions by focusing on the interaction between two embodied agents (which will address an aspect of PSM), while specifically describing the process of recognising and responding to another's optimal position in a given situation (which addresses SC and Hutto's argument concerning vagueness). In order to continue, I must show that IMG is distinct from MI. To do so, I will argue that not all cases of MI involve IMG. I begin with an example that illustrates both MI and IMG

Whenever I speak to an audience (either while teaching or giving a presentation at a conference), like many other public speakers, I scan the room to gauge how my presentation is being perceived and adjust the presentation based on the audience members' facial expressions, gestures, and general body language. For instance, if I see that an audience member (or members) appears confused, I will rephrase what I have just said, use a different example, or even simply repeat what I have said earlier in order to clarify my point. Or, if I am lecturing to a group of students who appear tired and sleepy, I may use more animated techniques (e.g., tell more jokes, use more hand gestures, or call upon specific students to have them interact more with the lecture). Fuchs and De Jaegher would consider my examples cases of MI, as my interaction with the audience members is fuelled by our bodily reactions, e.g., the audience's

expressions and mannerisms directly affected the way in which I presented my material.
Therefore, the way in which I give presentations involves MI. One could also reformulate this as
a deductive argument.

> All cases of bodily interaction involve MI (Fuchs & De Jaegher 2009, p. 482).
>
> My presentation style involves bodily interaction.
>
> Therefore, my first conference presentation involved MI.

This example also involves IMG. For instance, my sleepy students solicit me to respond
in a particular way as a lecturer to maximise their optimal positions (the optimal position in this
case is understanding the material). In many cases, this would be a matter of OPR rather than
JOPR as the audience members often will not know what my optimal position is in developing
my material. Like the coach example I described earlier, the coach recognises his own optimal
position *qua* coach and the player's optimal position *qua* player, but the player need not
recognise the coach's optimal position *qua* coach. Of course, that is not to say that such an
interaction will never involve JOPR. For instance, I have had students take more than one course
from me, these students are often more expressive if they do not understand something or if they
do and want me to continue on to another point. In this case, we are reciprocally responding to
each other's respective optimal positions.

However, there are also examples that involve MI that do not involve IMG. For example,
years ago my wife and I went to our friends' house for a party. During the party, the hosts had us
play several games on their newly purchased Wii console. One game, in particular, was a
rowboat racing game whereby one boat was controlled by two people – one player controlled the
front rower and another controlled the rear rower. The difficult part was coordinating with your
partner to ensure the boat was 1) on course and 2) faster than your opponents. My wife and I had

not played this game before and we had a very difficult time coordinating our rowing

movements. I believe at one point we veered off course and could not get back on track as we

were spinning in circles. During this time, my wife and I were getting quite frustrated with each

because we each blamed the other for our poor performance. Fuchs and De Jaegher would say

this involved MI, but I would argue this did not involve IMG, as we were not responding to each

other's optimal position. In fact, one could argue that our negative interaction could be

accredited to our lack of IMG.

Having shown that IMG and MI are not identical processes, I now want to show how

IMG can be more informative than MI in understanding specific cases of social interaction. To

do so, I want to reconsider Morton's tennis example described earlier in the chapter:

> You are near the net while your partner meets the ball. You can see one of your
>
> opponents preparing to reply, in a way that you haven't a hope of intercepting
>
> from where you are. You move out of the way, on the assumption that your
>
> partner is moving into position to meet the ball and return it through where you
>
> had been standing. (2003, pp. 1-2)

Using the same deductive argument presented earlier, Fuchs and De Jaegher would say

Morton's example involves MI[59]. However, I believe the example warrants a more detailed

explanation in order to account for the various specifics of the situation. For instance, we can

ask, "How does incorporating the other allow me to know that my partner can return the serve if

I were to get out of the way?" If we use IMG to understand the example, then we can see that

you recognise your own optimal position, as you recognise that you cannot return it from your

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[59] In other words:

1) All bodily interaction involves MI.
2) Morton's example involves bodily interaction.
3) Therefore, Morton's example involves MI.

position. In addition, you also recognise the other's optimal position, as you can see that the

other can return the ball if you were only to get out of the way. MI could not account for this

particular aspect of Morton's example, as the degree of the interaction does not pick out the

specific instance of recognising and responding to another's optimal position. In summary, IMG

bridges both PSM and SC as it stems from a general way in which we "constitute the meaning of

the world," while addressing how we specifically understand another person. Additionally, being

grounding in Dreyfus' theory of expertise, IMG addresses Hutto's concern that De Jaegher's

account lacks a discussion of the important mechanisms involved in interaction.

Before I conclude, I will address a potential objection against my account of IMG.

Potential Objection

At this point, a proponent of FP may object and argue that IMG could be used to support

FP, as it may involve knowing how to assign propositional attitudes, simulate and/or apply a

theory. However, even if we do attribute propositional attitudes to others while engaging in IMG,

it would be done from, what Dreyfus calls, a more deliberative stance, not the calculative stance

indicative of FP. For instance, recall Gordon's distinction between hot and cold methodologies

discussed in chapter 1. In short, a cold methodology is primarily concerned with inferring

propositional attitudes and understanding their law-like relations in order to explain and predict

another's behaviour. Whereas Gordon uses the term 'cold methodology', Dreyfus uses

'calculative reasoning'. The application of IMG is not a matter of cold calculation of

propositional attitudes and understanding how those attitudes cause behaviour, as even if we do

expertly apply propositional attitudes we would do so against a backdrop of other intuitive,

'warm' responses. Furthermore, even in the cases where we may have used a theory early in acquiring the skill, Dreyfus would say that once we became experts, we would leave those theories behind and use intuitive responses – making this skill atheoretical as well. Therefore, IMG is not consistent with TT.

Moreover, although I appeal to Gordon's distinction, IMG is not a matter of simulation. As I pointed out earlier in this chapter, IMG is not a matter of understanding another's optimal position by first projecting myself to the other's position and then simulating what I would do in that situation in order to explain and predict what that other person will do. Additionally, it is not a matter of transforming into the other, as IMG is a matter of recognising and responding to the other *as* other through a direct, pragmatic interaction.

Conclusion

To sum up, although IMG is related to MI in that both seek to describe dynamic, bodily interaction, IMG describes a more specific phenomenon that MI does not specifically allude to: the way we coordinate our behaviour with others by recognising and responding to each other's optimal position. This account of interaction is more specific in that, although all cases of IMG involving bodily interaction would involve MI (if we still maintain MI's wide ranging definition to include all cases of bodily interaction), not all cases of MI involve IMG. Lastly, IMG ties together the thesis by addressing De Jaegher's call for a more developed account of 'social skill' (De Jaegher, 2009 p. 427). IMG does just that by presenting a more specific account of how we coordinate with each other based on a Radical Anti-Intellectualist account of expertise.

Conclusion

In summary, this thesis has integrated the separate debates about social understanding and expertise to develop IMG, a concept that describes an atheoretical way in which we engage with others that does not require the attribution of propositional attitudes in order to anticipate and respond to their behaviour. Developing this concept also addressed De Jaegher's (2009, p. 427) challenge to further develop the concept of "social skill". Before I formally conclude my discussion of IMG, I will provide a brief outline of how we arrived at this conclusion.

The purpose of chapters 1 and 2 was to elucidate the central positions within the debate about social understanding. For instance, chapter 1 provided an overview of the history and explanation of the various accounts of FP. More specifically, I traced the history of FP to Sellar's "Myth of the Given", discussed the debate concerning the ontological status of propositional attitudes, and ended the chapter by discussing various accounts of theory-theory (TT) and simulation theory (ST) while highlighting their commitment to cognitivism and their emphasis on prediction in understanding others' behaviour. Chapter 2, then, presented various interactionists' challenges to FP by focusing on several features of their respective arguments. For instance, I presented the interactionists' challenge to the supposition that mental states are not observable by developing the argument that some mental states are embodied and observable, making the need for mental state attribution to others unnecessary. I discussed the interactionists' critique of the proponents of FP's stance taken towards others. I also explained Hutto's 'narrative practice hypothesis' (NPH) as an alternative to ST and TT in order to explain

the attribution of beliefs and desires, as well as Ratcliffe's extreme argument that FP has "no psychological reality" (2007a, p. 224).

Chapter 3 marked the beginning of a series of arguments that culminated in the development of IMG. Since this thesis's goal was to supplement the interactionists' alternative to FP, chapter 3 defended the interactionists against arguments made by several critics. Starting with Herschbach's argument, I showed that the empirical studies he uses for the existence of on-line false belief understanding fails to support his critique: one study simply presupposes FP from the start and the other appears to support, rather than undermine, the interactionists' position. The second half of chapter 3 addressed Spaulding's arguments that phenomenology is irrelevant in the debate about FP and phenomenological arguments cannot confidently undermine FP, as they are prone to error. I countered the first argument by showing that the explanandum for TT and ST is at least partly derived from phenomenological reflection upon what we do. I addressed her second argument by first relating it to Dennett's criticisms of phenomenology. From there, I listed several counter arguments to Dennett's criticisms and then applied them to Spaulding's arguments.

Whereas the first three chapters focused on the debate about social understanding, Chapters 4, 5 and 6 focused on the debate about expertise, specifically Hubert Dreyfus' position. Chapter 4 introduced Dreyfus' account by explaining the various stages in developing expertise (novice, advanced beginner, competency, proficiency, and expertise) and how concepts such as maximal grip, the intentional arc, and temporality aid his non-representational/non-propositional position. I also related Dreyfus' position to Ryle's distinction between know-how and know-that, and made the argument that Dreyfus is a Radical Anti-Intellectualist regarding expertise, as he argues expertise is a matter of know-how. Chapters 5 and 6, then, defended Dreyfus' Radical

position. Specifically, chapter 5 defended Dreyfus' Radical Anti-Intellectualism against Selinger and Crease's 'expert in x' and Montero and Evan's claim that some forms of expert perception are rational "through and through". Additionally, Chapter 6 addressed the objection that Dreyfus' account lacks a discussion of intersubjectivity by further developing Gallagher's argument that the intersubjective aspect of embodied action is implicit. In doing so, I drew a connection between Dreyfus' discussion of maximal grip and Fuchs and De Jaegher's discussion of unidirectional and mutual incorporation. I concluded chapter 6 by raising some concerns with their discussion of mutual incorporation, which led to chapter 7 where I introduced IMG.

Chapter 7 began with a brief account of how I initially discovered IMG, which also acted as the first introduction to the concept's key features. I then split IMG into two separate concepts: optimal position recognition (OPR) and joint optimal position recognition (JOPR). From there, I explained how IMG added to the various arguments made by the interactionists and how IMG is distinct from Fuchs and De Jaegher's concept of mutual incorporation (MI). For instance, it was shown that MI is meant to address the problem of participatory sense making (PSM) and not necessarily social cognition (SC). IMG, however, bridges both PSM and SC by focusing on how we understand others by recognising and responding to their optimal positions in a given situation.

In closing, IMG, then, completes the aim of the thesis by supplementing the interactionists' arguments against FP and expanding on a form of interaction in greater detail, adding to the much needed discussion of "social skill".

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