# Non-conceptual Content and Vision in Action

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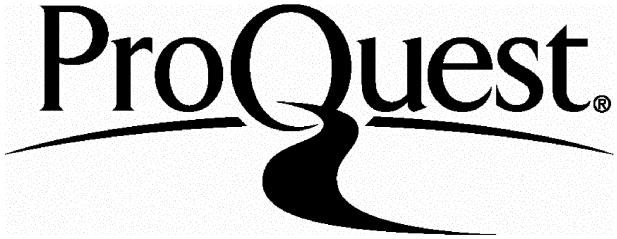


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**Abstract:**

In this thesis, I argue that there is a way in which visual awareness guides action that must be characterised nonconceptually. I argue for two conditions on concept possession: the generality constraint and McDowell's re-identification constraint. I argue that there is kind of visuo-spatial content of experience which guides action for which these two constraints are not met. I call this kind of content 'pragmatic content'. The guiding idea is that there is a way in which objects or properties appear in everyday contexts of using them such that how they appear is not independent of the subject using them on a particular occassion. The way in which they appear is due to a distinctive kind of content, pragmatic content. I use recent empirical work to how this kind of content is reflected in recent work in cognitive neuroscience. I respond to an objection that the kind of pragmatic content posited in the neurosciences is not phenomenologically salient. In the final part of this thesis, I argue against McDowell's argument that the content of perceptual experience must be conceptual. He argues perceptions are reasons for empirical beliefs, and that perceptions are reasons for empirical beliefs only if they have conceptual content, because all reasons must be subject to subjective reflection and only conceptual states can meet that demand. I argue that this demand can be met by the nonconceptualist. I suggest and defend a technique for meeting the demand proposed by Evans.

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## CHAPTER ONE

### 1.0 *Introduction*

In this chapter, I distinguish contentful states from non-contentful states. I introduce some conditions on concept possession which will be used in chapter two, that is, I show that experiences have spatial content such that properties or objects appear a certain way to the subject but she does not meet one or more of the conditions on concept possession. In third part of this chapter, I briefly survey the main arguments put forward for nonconceptualism i.e. that it can appear to me as if $a$ is $F$ and I do not possess the concepts '$a$' or '$F$'.

### 1.1 *Contentful States & Correctness Conditions*

In this chapter, I draw the distinction between conceptual and nonconceptual states. I argue a mark of contentful states is the they have conditions of correctness, and states with content should have a role to play in the explanation of behaviour in situations where the connections between sensory inputs and behavioural outputs cannot be plotted in a lawlike manner.

Suppose that I believe that there is a cube before me. Beliefs are propositional attitudes. The content of my belief is specified in a 'that' clause. In attributing a propositional attitude there are three things that must be done. First, identify a particular person. Second, attribute an

attitude to that person. Third, specify a proposition to which that attitude is held. Propositional attitudes are paradigmatically conceptual states. This is because propositional content is conceptual content. So, we need a general account of what it is for a state to have content that does not imply that contentful states are conceptual states.

Peacocke has proposed that a state has content iff it has a correctness condition.[1] This suggests that a minimal account of content is that a state presents the world as being a certain way iff there is a condition or set of conditions under which it does so correctly, and the content of that state is given in terms of what it would be for it to present the world correctly.

The minimal account is consistent with a state of a tree having content. Dretske has argued that a state of affairs carries information about another state of affairs iff there is a nomological covariance between the respective types of which they are tokens.[2] A standard example is that of the rings of a tree which carry information about the age of the tree. We can specify a correctness condition: the rings on the tree correctly indicate the age of the tree iff the number of rings is the same as the number of years the tree has been in existence. It is arguable that it is the lawlike connection between the number of rings and the number of years that makes it plausible to speak of the former carrying information about the latter. What makes it a lawlike connection is the fact that the number of

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[1] Peacocke, C, (1992): *A Study of Concepts*, Cambridge, Mass.: MIT Press.
[2] Dretske, F, 1981, *Knowledge and the Flow of Information*, Cambridge, Mass.: MIT Press.

rings and the number of years invariably coincide. But invariable coincidence rules out the possibility of misrepresentation.

So, the minimal account is not sufficient to settle whether or not we are dealing with genuine content or not, given that we want general conditions for content to imply the possibility of misrepresentation. Bermudez suggests that, as well as having conditions of correctness, states with content should have a role to play in the explanation of behaviour in situations where the connections between sensory inputs and behavioural outputs cannot be plotted in a lawlike manner.[3]

We can distinguish between mechanistic and intentional explanations of behaviour. Intentional explanations explain an organism's behaviour in terms of the goals and desires which that behaviour is intended to satisfy, and appeal to desires and goals and representational states. Two kinds of representational state are needed: a representation of the environment and a representation of how performing that action can satisfy the desire in question. Mechanistic explanations of behaviour can be given in purely bodily terms, and don't need to be described as relating to objects in the environment. Hard-wired connections between sensory input and behavioural output do not demand the attribution of representational states. An organism programmed in a certain way might respond by moving away from a bright light each time the light is shone at it. There is an invariant connection between stimulus and response. Situations in which the connection between sensory input and behavioural

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[3] Bermudez, J, 1995, "Nonconceptual Content: From Perceptual Experience to Subpersonal Computational States", *Mind and Language*, vol.10, no.4, p.333-369.

output are invariant in this way are not ones in which we need to bring in representational states.[4] The need to bring in representational states, including perceptual representational states, arises when invariant correlations break down: when the response occurs in the absence of the stimulus, or when the stimulus occurs and is registered without the response following. In the first, case there may be a representation that provokes the response, and, in the second case, there is the presence of the stimulus but no representation.

So, then, as well as having conditions of correctness, states with content should have a role to play in the explanation of behaviour in cases in which there is not invariable correlation between sensory inputs and behavioural outputs. For all that has been said, this is consistent with subpersonal states having content. Information processing theories analyse a person into an organisation of subsystems and attempt to explain the behaviour of the whole in terms of the subsystems. States implicated in personal level explanations are properly attributable to persons. Subpersonal states, in contrast, cannot be properly attributes to persons, but only to sub-systems whose operations are to be understood in a fundamentally different manner from the operations of persons. Suppose that a state of my visual system represents that there is an object before my eyes. The representational relation holds essentially between my visual system and the environment, but not essentially between me and the environment. This raises the problem of capturing the person as the subject of experience.[5] Cussins writes:

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[4] Ibid. p.347.
[5] Dennett, D, (1969): *Content and Consciousness*, London: Routledge.

...nonconceptualism, as opposed to conceptualism... is not... about the characterisation of a subpersonal perceptual system of the organism. The aim is to capture how the person's perceptual experience presents the world as being (i.e. a genuine notion of personal level content). The notion of nonconceptual content is a notion which must ultimately be explained in terms of what is available in experience.[6]

So, we have a general account of contentful states that does not imply that they are conceptual, but is consistent with subpersonal states having content. The nonconceptualist, if she is to be successful, must show that personal level states, in particular, perceptual experiences have content but that content is nonconceptual.

### 1.2 *Necessary Conditions for Concept Possession*

Nonconceptualists about perceptual experience hold that it can appear to a subject as if *a* is *F* and the subject does not possess the content *'a'* or the concept *'F'*. A standard strategy for showing that this is possible is to argue for necessary conditions on concept possession, and then provide cases in which a subject has an experience as of *a* is *F* but fails one of more of the conditions on concept possession for the concepts *'a'* and *'F'*. In this section, I argue that concepts are inferentially relevant constituents of belief, and for two necessary conditions such that if either of them is not met, then the subject does not possess the concept in question.

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[6] Cussins, A, (1990): "The Connectionist Construction of Concepts" in *The Philosophy of Artificial Intelligence* ed. Boden, M, Oxford: OUP, p.368-440.

### 1.2.1 *Frege's Constraint*

Frege's writings suggest that, whatever else concepts are, they are the inferentially relevant constituents of intentional states. Frege writes:

> The task of our vernacular language is essentially fulfilled if people engaged in communication with one another connect the same thought, with the same proposition. For this it is not at all necessary that the individual words should have a sense and meaning of their own, provided only that the whole proposition has sense. Where inferences are to be drawn the case is different: for this it is essential that the same expressions should occur in two propositions and should have exactly the same meaning in both cases. It must therefore have a meaning of its own, independent of the other parts of the proposition.[7]

Deviating from Frege's specific concerns, we can substitute the terms 'sentence' for 'proposition' and the terms 'content' for 'thought'. If we simply wanted to represent facts, then our beliefs would only need to have whole contents. These contents might have constituents, but would not be individuated by semantic role.

It seems that for the purposes of communication it is not necessary that there are concepts, since the contents of our intentional states need only be structured sufficient to represent facts.[8] But insofar as we reason, and so make inferences, the contents of our beliefs must be structured in a way that makes possible valid inferences. Suppose that I believe that $a$ is $F$ and that $a$ is identical to $b$. Ceteris paribus, I am disposed to believe that $b$ is $F$. For my inference to be valid, it is necessary that the same parts of the content should occur in the premises and the conclusion, and should have exactly the same meaning in both cases. So, my belief that $a$ is $F$ and

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[7] Frege, G. (1980): *The Philosophical and Mathematical Correspondence*, Oxford: Blackwell, p.115.
[8] Hart, W. (1983): "The Anatomy of Thought" in *Mind*, 92, 264-269, see p.268.

the inferred belief that *b* is *F* must both contain tokens of the same semantic type, the concept "*F*", for instance. So, we cannot explain the inferential properties of our beliefs unless we conceive of their contents as being conceptually structured. It follows that whatever else concepts are, they are inferentially relevant constituents of intentional states.

### 1.2.2 *Evans' Generality Constraint*

Evans' generality constraint is similar to Frege's point about concepts being inferentially relevant constituents of intentional states. His constraint can be given as follows:

- An organism does not possess a concept "*a*" of an object unless it can think that *a* is *F*, that *a* is *G*, and so on, for all the concepts "*F*", "*G*",..., of properties it possesses.
- An organism does not possess a concept "*F*" of a property unless it can think that *a* is *F*, that *b* is *G*, and so on, for all the concepts "*a*", "*b*",... of objects which it possesses.

Evans writes:

> There simply could not be a person who could entertain the thought that John is happy and the thought that Harry is friendly, but who could not entertain - who was conceptually debarred from entertaining - the thought that John is friendly or the thought that Harry is happy.[9]

[9] Evans, G. (1982): *The Varieties of Reference*. Oxford: OUP. p.103.

I am not entirely sure what Evans has in mind. One way to argue for the generality constraint is as follows.[10] It concerns conditions for having beliefs about the world, believing in possible ways the world could be. Suppose that I judge that John is happy. I must have some conception of the conditions under which my judgement would be true or false. I must be sensitive to conditions under which I should make that judgement, and be sensitive to condition under which I should retract it. If I judge that Harry is happy and I see that John is behaving in all the same ways as Harry, then I should judge that John is happy, if the question arises. In judging that John is happy, I am judging that John is the same, in relevant respects, as other happy things, in this case, Harry. If I judge that my pen is red and I see that it is not the same colour as blood, then I should retract my judgement. To judge that my pen is red is to judge it to be a way that other things can be. This involves the exercise of a concept that can be applied to other things. So, that we need a notion of generality follows from the nature of judgement.[11] We can see that there is a similarity with Frege's constraint - inferential connections provide the arguments, and concepts are needed to explain the inferential connections.

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[10] Luntley, M, (1999): *Contemporary Philosophy of Thought*, Oxford: Blackwell, p.21-22.

[11] Evans' generality constraint requires that concepts have inferential structure. Fodor may not accept the generality constraint, because he believes that concepts have no structure. He writes: "'What is the structure of the concept *dog*?' ...on the evidence available, it's reasonable to suppose that such mental representations have no structure; it's reasonable to suppose that they are atoms", see Fodor, 1998, *Concepts: Where Cognitive Science Went* Wrong, Oxford: OUP, p.22. The guiding idea is that the content of a concept is determined by the concept's standing in an appropriate causal relation to thing in the world. The concept of dog is not given in terms of its inferential connections with other concepts, rather the concept of dog expresses the property of being a dog because there is a causal law connecting the property of being a bird with the concept of dog. It should be noted, then, that in this work I do not focus on information based semantics, of which Fodor's is arguably the leading example. Rather, my work takes place within the semantic framework, a Fregean semantics, of the leading protagonists within the conceptualism versus nonconceptualism debate.

Moreover, in order for my judgement to be to be about John, rather than some other object, it seems that it must be the case that I am able to understand other things about John: where he is, how large he is, and so on. I must be able to understand what it is John to be old, blond, and so on.

### 1.2.3 *McDowell's Recognition Condition*

There is a third constraint on concept possession. This constraint holds for demonstrative concepts. The fineness of grain argument shows that the notion of a demonstrative concept is crucial to the nonconceptualism versus conceptualism debate. He argues that possession of a demonstrative concept requires the subject to have the capacity to exercise that concept independently of the context in which it originally had its application. McDowell writes:

> In the presence of the original sample, 'that shade' can give expression to a concept of shade; what ensures that it is a concept... is that the associated capacity can persist into the future, if only for a short time, and that, having persisted, it can be used also in thoughts about what is by then the past, if only the recent past. What is in play here is a recognitional capacity, possible quite short-lived, that sets in with experience. (MW p.57).

The motivation for this requirement is that there must be some kind of distance between the thought had by means of the concept and the thing in the world that makes the thought true. That McDowell thinks this is shown by the following quote, although his reasons for thinking it are not clearly spelled out:

> We need to be careful about what sort of conceptual capacity this is. We had better not think it can be exercised only when the instance that it is supposed to enable its possessor to embrace in thought is available for use as a sample in giving linguistic expression to it.

That would cast doubt on its being recognisable as a conceptual capacity at all... [Because the] putative thought... is being construed so as to lack the distance from what would determine it to be true that would be necessary for it to be recognisable as a thought at all.[12]

I am not sure what McDowell's argument for the claim that possession of a demonstrative concept requires the subject to have the capacity to entertain the content of that concept independently of the context in which it originally had its application. His condition at least implies that in order to possess a demonstrative concept for $x$, a subject must be able consistently to re-identify in different contexts a given object or property as falling under the concept if it does.[13]

The condition does not follow from the generality constraint. The generality constraint implies that if I think that $a$ is $F$, then, for any other concept $G$, which I possess, I can think that $a$ is $G$. Suppose that I am looking at a shape. I can say, while looking at it, that this shape will fit in my cupboard, or that this shape is irregular, and so on. This is consistent with my not having the concept of this shape if I am not presented with it, and so I can have a demonstrative thought about it only if I am presented with it. So, meeting the generality constraint is consistent with not meeting McDowell's reflective condition. This shows that the two constraints are different.

Kelly offers an argument for the re-identification constraint.[14] Suppose that a subject is presented with two visual stimuli, two pictures of

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[12] Ibid.
[13] Again, Fodor, and other information semanticists, would not accept this constraint. There is no requirement in Fodor theory of concepts that the re-identification be met for demonstrative concepts.
[14] Kelly, S, "Demonstrative Concepts and Experience", *unpublished.*

piece of furniture, one is a picture of a table presented on the left, and the other is a picture of a chair presented on the right. Each time the subject is asked, "Are these pictures of the same kind of furniture?", he replies correctly, "No". In the second task, the subject is presented with the same picture, the picture of a table, ten times in a row. His responses to the question, "Is this the picture of the object earlier presented on the left?", are at chance. Kelly suggests that the subject does not know what that thing in the picture is. The subject lacks the concept expressed by "that kind of furniture" said while pointing to the picture of a table. If he does lack the concept, then one explanation is that this is because he fails the re-identification constraint.

The problem is that it is still consistent with what has been said that the subject meets the generality constraint at the time at which he is presented with the picture of the table. At that time he can think that that piece of furniture would look good in my room, or that piece of furniture is brown. He could loose this conceptual capacity as soon as the picture is out of sight. This would be peculiar, but it does not seem to imply that he could not have the concept.

I do not have a compelling argument for McDowell's constraint on concept possession. However, I do not rely exclusively on arguing that a certain kind of spatial content fails this constraint. Moreover, in arguing that the spatial content of visual awareness does not meet McDowell's constraint, I at least show that his position is internally inconsistent.

## 1.3 *Arguments for Nonconceptualism*

In the following sections, I survey core arguments for nonconceptualism and relate them to the conditions on concept possession already introduced.

### 1.3.1 *Fineness of Grain*

Evans first suggested that the content of perceptual experience is more fine-grained than the content of thought. He writes:

> Do we really understand the proposal that we have as many colour concepts as there are shades of colour that we can sensibly discriminate?[15]

Think of the various shade of colour we discriminate perceptually. It is false that we have a general concept for each shade discriminated. So, general colour concepts are insufficient to characterise the content of colour experience. McDowell has responded that this is the case for general concepts but not for demonstrative concepts:

> Why not say that one is thereby equipped to embrace shades of colour within one's conceptual thinking with the very same determinateness with which they are presented in one's visual experience, so that one's concepts can capture colours no less sharply then one's experience presents them?[16]

Demonstrative concepts pick out the way the object or property experienced is presented in experience. Unlike general concepts, they are context-dependent, and so their content changes depending on the context

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[15] Evans, ibid., p.227.
[16] McDowell, J, 1994, *Mind and World*, Cambridge, Mass.: Harvard University Press, p.56.

in which they are applied. The content of the expression 'that shade' might be very different in one context from the content of the same expression in some other context. Since the contents of our perceptions change from context to context, they seem well suited to explain the fine-grained character of experience. I shall argue in chapter two that there are features of the phenomenology of perception that resist this treatment and are more finely discriminated than it is possible for demonstratives to capture.[17] I do this by arguing that there are features of the phenomenology of perception such that the re-identification constraint and the generality constraint is not met.

It is worth noting that McDowell's motivations are not phenomenological. He is not concerned with the phenomenology of perception. McDowell is interested in the epistemology of perception: what must be the case for empirical beliefs to be justified by experience. He argues that the contents of experience must be conceptual if they are to justify beliefs.[18] In the third chapter, I argue that this claim is false.

### 1.3.2 *Belief-independence*

Normally, we believe the world to be the way we perceive it to be. But there are times when we do not. If I know that I am witnessing an

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[17] There are further developments in this debate that I have omitted. Peacocke has argued that demonstrative concepts cut phenomenology too finely. See Peacocke, C, 1998, "Nonconceptual Content Defended", in *Philosophy and Phenomenological Research*, vol.LVIII, no.2, p.381-388. For McDowell's response, see McDowell, J, "Reply to Commentators", in *Philosophy and Phenomenological Research*, vol. LVIII, no.2, p.414-19.

[18] McDowell is not alone in this. Brewer argues for the same conclusion. See Brewer, B, *Perception and Reason*, Oxford: Clarendon Press.

optical illusion, then my knowing this does not make the illusion go away. I do not believe that the one line is longer than the other - as in the case of the Muller-Lyer - but it appears to me as if one line is longer than the other. This shows that perceptions are not beliefs. If they were, then conceptualism would be true, since beliefs are paradigmatic conceptual states. Belief independence is sometimes discussed as potentially being an argument for nonconceptualism To argue that perceptions are belief-independent is not the same as arguing perceptions are concept-independent. So, unless some extra premises are added, belief-independence is not an argument for conceptualism.

Tim Crane has argued for nonconceptualism.[19] His argument is partly based on belief-independence. Crane considers abnormal experiences, including the 'Waterfall Illusion', in which the after-image of a waterfall when projected on to a stationary object produces the contradictory appearances of something moving yet remaining still. The argument is that in the cases of conceptual content, there cannot be contradictory instances of such content.[20] However, it is one thing to say that something cannot be both moving and not-moving, and it is another to say that something cannot appear both moving and not-moving.[21] Appearing moving and appearing not-moving are not contradictories. So, the fact that certain illusions involve contradictory appearances does not

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[19] Crane, T, 1988, "The Waterfall Illusion", *Analysis*, 48, p.142.
[20] But to justifiably draw the conclusion that the content is nonconceptual, it had better not be the case that there cannot be contradictory instances of such content. Peacocke gives a theory of one level of nonconceptual content that can accommodate contradictory contents. See Peacocke, C, 1992, *A Study of Concepts*, Cambridge, Mass.: MIT Press, esp. p.79.
[21] Hamlyn, D.W., 1994, "Perception, Sensation, and Non-Conceptual Content", in *The Philosophical Quarterly*, vol.44, no.175, p.139-153, see p.141-2.

entail that the contents of the perceptions is not a matter of concepts applied in perception.

### 1.3.3 *Memory*

Michael Martin argues that sometimes subjects can have an experience as of such and such when they lacked the conceptual apparatus necessary for conceiving of the such and such.[22] The idea is that remembering sometimes informs us that we saw something when we were not attending to it at the time. For instance, memory may tell me that it appeared to me as if there was a dodecahedron in front of me, but at the time I lacked the concepts necessary for the belief that there is a dodecahedron in front of me. I remember seeing something which I was not aware of at the time because I was not attending to it, and my memory preserves the perception. The claim is that I could have had an experience of a dodecahedron, and perceptually discriminate accordingly, even if I lack the concept dodecahedron, and later on I could acquire the concept and judge that I did see it, in that discrimination, as a dodecahedron.

One way to respond to this argument is to claim that I had a rich enough conceptual repertoire at the time of the original experience, because a demonstrative concept might have been in play in experience. Martin responds to this point:

> ...this point does not establish the conceptualist claim. It has not been denied that if a perceiver does attend to her experience she can acquire a concept for something that has a

[22] Martin, M.G.F, 1992, "Perception, Concepts, and Memory", *The Philosophical Review*, vol.101, no.4, p.745-763.

distinctive appearance. What is at issue is whether she must already have that recognitional capacity to have the experience, and the kind of case in question does not bear on that, since it is precisely a case in which the perceiver does direct her attention and notice what is salient about the feature experienced.[23]

However, McDowell could respond by claiming that conceptual capacities are drawn on in experience passively. He writes:

In experience one finds oneself saddled with content. One's conceptual capacities have already been brought into play, in the content's being available to one, before one has any choice in the matter. The content is not something one has put together oneself...[24]

Again, McDowell will appeal to the claim that perceptions justify beliefs only if their contents are conceptual. If at the time of having the experience, it could have been a reason for judging that that shape has twelve sides, say, then he will insist that the content of the experience was conceptual.

### 1.3.4 *Animals & Infants*

If the contents of perceptual experience is essentially conceptual, then it follows that animals and infants, that is, creatures that lack conceptual capacities, cannot enjoy perceptual experiences. Such creatures, on McDowell's view, could not have perceptual experience, except that concepts are not exercised, because this would be a return to raw nonrepresentational sensation for which such creatures could not supply conceptualisation.[25] So, it cannot be that a creature's experience is such

[23] Ibid. p.759.
[24] McDowell, ibid. p.10.
[25] McDowell, ibid., p.9.

that it is as if it were seeing a tree except that it lacks concepts, although it may show itself to be sensitive to its surroundings. Moreover:

> To give the impressions of 'inner sense' the right role in justifying judgements, we need to conceive them, like impressions of 'outer sense', as themselves already possessing conceptual content...[26]

It follows, then, that it cannot be within creature's experience in all respects as if it were experiencing pain, since it lacks the concepts to characterise pain. Given that McDowell's central argument for conceptualism, his epistemological argument, implies this, either his argument is unsound or our ordinary ways of thinking about the capacity to feel pain are mistaken.

The two leading proponents of nonconceptualism hold similar views. Evans claims that the operations of the information system are primitive to the extent that we share them with animals.[27] However, he denies that animals share conscious perceptual experience, because he claims that not only must sensory input be connected to behaviour, it must also be connected to a concept-applying system.[28] Peacocke holds a similar position. In response to the question of whether or not creatures can be in perceptual states with nonconceptual content, even though they lack concepts, he replies "no". He argues that perceptual states with nonconceptual spatial content are available only to creatures who have acquired at least a rudimentary conception of the objective world.[29] One

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[26] McDowell, ibid., p.21.
[27] Evans, ibid., p.124.
[28] Ibid. p.158.
[29] Peacocke, ibid., p.90.

reason for thinking that animals and infants have perceptual experiences with nonconceptual content is to explain their behaviour.[30] I shall not enter into these debates here.

### 1.3.5 *Analogue Content & Unit Free*

Peacocke argued has that perceptual experience have both an analogue and a unit free character.[31] To say that the content of a perceptual experience has an analogue character is to say that there are many dimensions - hue, shape, size, direction - such that any value on that dimension may enter into the content of the experience. But the possible contents of the experience are not restricted to those picked out by concepts - red, square, straight ahead - as possessed by the perceiver. This is a variant of the fine-grained argument. The unit-free nature of spatial perception is illustrated by the fact that when we see a table to have a certain width, we do not see it as having a certain width in inches, say, as opposed to centimetres. The conceptualist can appeal to demonstrative concepts in order to explain these phenomena.

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[30] See Spelke, E, and Van de Walle, G, "Perceiving and reasoning about objects: Insights from infants". In eds. Eilan, N, McCarthy, R, and Brewer, B, 1993, *Spatial Representation*, Oxford: OUP, p.132-162.
[31] Peacocke, C, (1986): "Analogue Content", in *Proceedings of the Aristotelian Society*, supp. vol.60, p.1-17.

## CHAPTER TWO

### 2.0 *Introduction*

In this chapter, I introduce the notion of pragmatic content, that is, spatial contents of experience used in the selection of movements appropriate to an action. I argue that properties or objects can be pragmatically represented in experience such that the re-identification constraint is not met and the generality constraint is not met. In the last part of this chapter, I address the objection that there is pragmatic content, in the sense that a visual system represents properties or objects for the purposes of action, but this is subpersonal, that is, pragmatic content is not phenomenologically salient. I argue that we have no good reason to deny its phenomenological salience and some reason to believe that it is salient.

### 2.1 *Pragmatic Content*

The notion of pragmatic content or intentionality is introduced by reflecting on phenomenological differences between perceptually encountering objects in the context of engaged or absorbed activity with them, on the one hand, and perceptually encountering them in the context of finding things out about them, so to speak, in order to make judgements about them, on the other hand. In the former case, how the object or properties is presented is not independent of how it is used. The contents of such experience must be specified in terms of implications for a subject's

action. The important point, then, is that in certain contexts, the way an object or property appears is not independent of how it is used on that occassion. How it appears in these cases is a matter of the experience having a certain kind of content, the kind of content specified in way that makes essential reference to the subject's activities.

Heidegger argues for this distinction in *Being and Time* and *The Basic Problems of Phenomenology*.[32] He describes two ways in which things can be presented: as available and as occurrent. Things are made available in 'dealing with' them, and things are presented as occurent in 'cognition'. 'Dealing with' refers to our mode of everyday coping with things in our surroundings. Heidegger writes:

> The kind of dealing which is closest to us is... not a bare perceptual cognition, but rather that kind of concern which manipulates things and puts them to use.[33]

The way in which we often encounter things is as things to get something done, that is, within the context of completing a task. Heidegger writes:

> That with which our everyday dealings primarily dwell is not the tools themselves. On the contrary, that with which we concern ourselves primarily is the task - that which is to be done at the time.[34]

The important point is that in using things we are not usually aware of

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[32] See Heidegger, M, (1962): *Being and Time*, London: Blackwell; Heidegger, M, (1982): *Basic Problems of Phenomenology*, Bloomington: Indiana Press; and see, for a good account of this material, Dreyfus, H, (1991): *Being-in-the-World: A Commentary on Division One of Being and Time*, Cambridge, Mass.: MIT Press.
[33] Heidegger, *Being and Time*, p.95, sec. 67.
[34] Ibid. p.95, sec. 69.

any determinate properties of those things, they are presented as having implications for what we are doing, but not in the sense that we reflectively think about those implications. We are not perceptually attending to them in order to find out about them. For these kinds of reasons, Heidegger writes:

> We do not always and continually have explicit perception of the things surrounding us in a familiar environment, certainly not in such a way that we would be aware of them expressly as available... In the indifferent imperturbility of our customary commerce with them, they become accessible precisely with regard to their unobtrusive presence.[35]

The important is that the mode of engagement, dealing with, points to a difference in the way an object is presented, it is presented in a way that is essentially related to our using it for something, or more precisely, the way an object or property appears is not independent of how it is used on that occassion. Dealing with contrasts with the other mode of engagement, cognition, findings things out about things, so to speak, in which the object is the focus of attention, on the basis of which we might judge the object to be a certain way; in such cases, how the object appears is not essentially related to how it is used on that occassion. Heidegger points towards this phenomenological difference in the following quote:

> The *equipmental nexus* of things, for example, the nexus of things as they surround us here, stands in view, but not for the contemplator as though we were sitting here in order to describe things... The view in which the equipmental nexus stands at first, completely unobtrusive and unthought, is the view and sight of practical *circumspection*, of our practical everyday orientation. "Unthought" means that it is not... apprehended for

[35] Heidegger, M, *The Basic Problems of Phenomenology*, p.309.

deliberate thinking about things...[36]

We need not take on all that Heidegger means by 'equipmental nexus', but instread insert, 'behavioural space', that is, our immediate surroundings containing objects and properties towards which our bodily actions are directed.

The phenomenological distinction between these two modes of engagement and the corresponding modes of appearing of objects is best illustrated by considering the phenomenon of disturbance. Heidegger writes:

The modes of conspiciousness, obtrusiveness, and obstinacy all have the function of bring to the fore the characteristic of occurrentness in what is available.[37]

For example, suppose that, as I reach down to turn the doorhandle in order to go into the room, the doorhandle becomes loose in my hand to the extent that it may drop off. I immediately notice its coming lose, and the doorknob is now presented in a different way, I am forced to attend to it, and think about it and what might be wrong with it. Before the malfunction, the doorhandle was presented in experience as something to be turned, and with arm's reach. It is now presented to me in a different way. In the case of dealing with a doorhandle, it was presented as being a certain distance from my hand and as something to be used in a certain

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[36] Ibid. p.163.
[37] Heidegger, *Being and Time*, p.104. sec. 74.

way. The ways it was presented were related to what I was doing. It would not have been presented in this way to somebody attempting to fix it.

For instance, it is appropriate to use the predicate 'within reach' to describe my absorbed experience, since it is in virtue of its appearing this way that I reached out to grasp it. It would not be appropriate to use this predicate to characterise the content of my visual awareness if I were staring at the distance between my hand and the object, since this need not have any connection with action, although the distance between them is presented to me in a certain way. The key point is that the way in which things appear in absorbed coping or engaged activity is not independent of the ways in which they are used.

I do not know how to give a knock-down argument for this phenomenological distinction, or that such an argument is possible, however, reflection in one's own case should illustrate the distinction. It also has similarities with Evans' notion of spatial content, and Campbell's recent distinction between causally indexical and causally non-indexical content. The kind of spatial content I have been arguing for is similar to Evans' conceptual of the spatial content of perception. He writes:

> What is involved in a subject's hearing a sound as coming from such and such a position in space?... When we hear a sound as coming from a certain direction, we do not have to think or calculate which way to turn our heads (say) in order to look for the source of the sound. If we did have to do so, then it ought to be possible for two people to hear a sound as coming from the same direction and yet be disposed to do quite different things in reacting to the sound, because of differences in their calculations. Since this does not appear to make sense, we must say that having spatially significant perceptual information consists at least partly in being disposed to do various things.[38]

[38] Evans, G, (1985), "Molyneux's Question", in *Collected Papers*, Oxford: OUP, p.364-400.

Evans' proposal is that experience makes available way of moving or behaving, and that the content of an experience can be reduced to dispositions to behave. I agree that experience makes available ways of moving, but I disagree that the content of experience can be reduced to dispositions to behave. If two people have different goals or purposes, then it might well be that they are disposed to behave differently in response to hearing a sound.

The correct conclusion to draw from reflecting on the role of perceptual experience in action is that its spatial content is expressed in behaviour, and is not the kind of content that figures directly in the contents of judgings, rememberings, and so on. Campbell's notion of causally indexical content is appropriate in characterising the kind of content I have been arguing for. We can describe subjects as experiencing objects to be within reach or graspable, and the content of their experience is expressed in terms of its immediate implications for their actions, and does imply that the subject possess concepts that we might use in characterising the content.

### 2.2 *Pragmatic Content & The Re-identification Constraint*

In the previous section, I argued that the way an object or property is presented in cases of absorbed activity is not independent of the way in which it is used on that occassion. I suggested that Campbell's notion of causally indexical content, in which the content is given in terms

immediate implications for a subject's action, is the correct way to characterise the contents of experience in absorbed cases. In this section, I present two arguments for claim that the re-identification constraint is not met in the case of pragmatic content. The first argument draws on ideas just discussed to show that the re-identification constraint is not met. Note that this is different from arguing the visual experience is fine-grained in general, rather, my point turns on there being a kind of pragmatic, action related, spatial content that explains the difference in phenomenology between engaged contexts and more 'cognitive contexts'. The second argument is for the conclusion that we perceptually discriminate our surroundings but need not have memory for those discriminations.

I appeal to the idea of how things are presented when immersed in activity with them is different from how they are presented in cases of more 'cognitive tasks'. In the former case, my appreciating in experience the doorknob to be with reach or to be turned is essentially related to how I am using it or preparing to use it. If I were not using it or preparing to use it in this way, it would not have been presented to me as within reach or to be turned. If I were deliberately staring at it, then I could think about the fact that I could reach it or that it can be turned, but the content of my experience would not reflect this, the way in which the object is presented would be different. It would not be in terms of its immediate implications for action.

The crucial point that the application conditions for using, say, 'within reach' or 'to be turned', to describe how things appear to a subject

make reference to what the subject is doing at that time. If he is rushing to get to a lecture, he gets to the lecture room door, reaches out and turns the door handle, then we can say that he experienced the doorhandle to be within reach and as turnable. We can say this only within the context of his activities. If stops being an agent in this way, then the phenomenology of his experience changes, how things or properties appear in experience is different, that is, there is a difference in content as reflected in the phenomenology, a difference in the intentional content of the experience.

If when the subject is not interacting with things, in dealing with them, the phenomenology of his experience of things in his surroundings changes, then the content of his experience will only be available to apply the case of his acting in this way. Crucially, it does not meet the re-identification constraint, because it is not available to apply in other contexts, it is not available to be used to identify other features as falling under it. The way his perceptual awareness is shaped by his activities precludes its content from being applicable in other contexts, as it would be if it were conceptual content, even if it were demonstrative content. This means that the re-identification constraint is not met, so we cannot use demonstrative concepts to characterise the pragmatic character of the content of experience.

Support for this view is provided by recent empirical work. D.F. suffers from visual form agnosia. Goodale et al. and Milner et al. studied DF. [39] She had a large lesion in the occipital area. Testing showed that

[39] See Goodale, M, Milner, A, Jakobson, L, and Carey, D, (1991): "Perceiving the world and grasping it. A neurological dissociation", *Nature*, vol. 349, p154-156; and see Milner,

DF's performance for visual acuity and colour discrimination was subnormal. The patient's perception of simple forms and shape, and size detection were at chance, and consequently, DF could not recognise objects. Detection of line orientation was also at chance. In contrast, in the line orientation test, if DF responded by using reaching movements where the subject orientated her hand through a slit, her responses were accurate. DF when reaching for objects performed accurate prehension movements, with the size of her finger grip normally correlated with object size.

She exhibits severe temporal limitations. Goodale et al. studied the effects of interposing a temporal delay between showing an object to D.F. and then allowing her to reach out to grasp it unseen. [40] In normal subjects, grip size correlates well with object width, even for delays up to thirty seconds. In D.F. all evidence of corresponding grip scaling had disappeared after two seconds. Milner et al. argue that this failure cannot be attributed to a general impairment in short-term memory since D.F. has only a mild impairment when tested in auditory or verbal tasks. In normal subjects, grasping movements made in the delay condition are very different from those directed at objects that are physically present. This suggests that normal subjects are 'pantomiming' their grasps based on stored representations of the object just seen. D.F. cannot use such

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A, Perrett, D, Johnston, R, Benson, P, Jordan, T, Heeley, D, Bettucci, D, Mortara, F, Mutani, R, Terazzi, E, and Davidson D, (1991): "Perception and action in 'visual form agnosia', *Brain*, 114: 405-428.

[40] Goodale, M, Jakobson, L, and Keiller, J, 1994, "Differences in the visual control of pantomimed and natural grasping movements", *Neuropsychologia*, 32, p.1159-78.

representations with which to pantomine grasping. Her visuo-motor ability operates in the 'here and now'.

There are two things to note here. The fact that, in the case of normal subjects, their pantomimed grasping movements are very different from when actually interacting with the object suggests that the spatial content in the two cases is different. The spatial content used in the actual case to guide movement is likely to the same as the spatial content used by D.F. in actual cases. Second, D.F. did not acquire a capacity to re-identify the spatial attributes of the object, whereby such capacities could be used in making the pantomimed movement. The spatial content that guides her actions operates in the 'here and now' and does not conform the re-identification constraint.

I shall argue, next, by a different route, that a subject can pragmatically represent a property or object in experience and fail to satisfy the reflective condition. My argument can be stated as follows: first, in order to possess a demonstrative concept for $x$, a subject must be able consistently to re-identify in different contexts a given object or property as falling under the concept if it does; second, there are pragmatic presentations of perspectival aspects of objects which guide behaviour such that subjects of those presentations cannot re-identify the aspects as falling under a concept; and, third, so subjects of these presentations do not possess demonstrative concepts for those aspects. This is sufficient to show that a presentation in action of an aspect is nonconceptual, since for reasons of fineness of grain, the subject does not have corresponding

general concepts for all aspects so presented. Premise one is an interpretation of McDowell's reflective condition on demonstrative concept possession.

In defence of premise two, suppose that I am in my kitchen and I reach out and grasp the kettle. This is a complex action that requires co-ordination between movements of my fingers, hands, upper limbs, torso, head, and eyes. The visual features represented in visual awareness required will be equally complex, which is used to guide my movements.[41] To reach towards the kettle, it is necessary that its egocentric location, and, perhaps, motion, if I am on a boat, for instance, is presented to me in viewer-centred co-ordinates. And to form and scale my hand and fingers requires that the kettle's size and shape is presented to me. Since the relative positions of me and the goal object will change from moment to moment the content of my visual experience of the object's spatial attributes will change over and time and be different each time that action occurs. That I am presented with such complex perspectival spatial features is revealed in my behaviour.

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[41] There is experimental evidence which shows that the role of vision in reaching and grasping is as complex as my description suggests. Jeannerod filmed subjects reaching for objects of different sizes and analysed the pattern of their movements and how long it took for each part of the pattern to be produced. The movement breaks down into the reach phase and the grasp phase. The reach phase involves aiming the hand in the direction of the target and moving it the correct distance. The second phase of the movement, the grasp phase, begins during the reach phase, and, if correct, reflects the size, shape, and orientation of the object to be picked up. When subjects began to reach, their fingers were partly bent and the tips were close to the thumbs. During the first part of the movement, the fingers began to stretch and the gap between finger and thumb grew larger. After about three-quarters of the movement duration, the finger gap was reduced in order to fit the size of the target object. This grip size changed with object size, so that the fingers were quite far apart for large objects and close together for small objects. Jeannerod writes: "The reaching... component... reflects determination by the visual system of the coordinates of a point in a body-centred space. The grasping... component reflects visual computation of shape, size and weight of the object". See Jeannerod, M. (1984). The timing of natural prehension movements. *Journal of Motor Behaviour*, 16, 235-254.

My movements in reaching and grasping the kettle shows that I visually discriminate the complex arrangement of perspectival features relevant to controlling and guiding my movements. I do not, for each feature represented that explains a feature of my movement in acting have a capacity to re-identify it. This means, by the re-identification constraint, that it is not the case that there are demonstrative concepts in play in experience for each aspect discriminated in perception.[42] Reflection on the immensely complex perspectival aspects that we are presented with in experience, as expressed in our behaviour, casts doubt on the claim that for each feature so presented we have a capacity to re-identify it. There seems to be nothing in the nature of perception which implies that I must have memory for the kind of thing presented, the orientation of my coffee cup in the context of my walking into my room and picking it up almost without looking. It is perfectly conceivable that I have no capacity to re-identify that orientation, and it does not seem to follow that I had no awareness of it. So, I claim that in visual awareness used in bodily action it is often the case that our visual discriminations exceed our capacity to re-identify everything discriminated. This means that, if the re-identification constraint is a constraint on demonstrative concept

[42] Kelly makes this point about tying memory to discriminations in perception. Suppose that a subject is presented with two colour samples of different shades of green. Each time he is asked "Are these the same colour?" the subject consistently replies 'no', and is consistently right to do so. In the second test, however, the subject is presented ten times in a row with one of those two colour chips. In response to the question "Is this the same colour that was previously presented to you on your left?" the subject's responses are at chance. Kelly concludes: "It's perfectly conceivable, in other words, and there's nothing in the nature of *perception* to keep it from being true, that our capacity to discriminate colours exceeds our capacity to re-identify the colours discriminated." See Kelly, S, "Demonstrative Concepts and Experience", *unpublished*.

possession then they cannot be used to characterise fully the contents of perceptual experience in action.

One way of denying this argument - I'll focus on the 'pragmatic' case of vision used for reaching and grasping - is to claim that I am not visually *aware* of the perspectival aspects of the kettle. This would amount to claiming that my discriminatory capacity used in the guidance of behaviour is a capacity of experience only if it is essentially tied to a capacity for re-identification. I am assuming here that I do not have general concepts for these aspects, which I do not have. This is to deny the counter-examples and assert conceptualism. There doesn't seem to be any a priori reason about experiences as such that requires us to be able to remember them later on in exactly the detail in which we originally experienced them. It may, then, be an empirical question as to whether or not no memory for visually presented spatial attributes implies no experience of them. This is an important question and reflection on cases such as D.F. has lead some psychologists to claim that a kind of content used in guiding movements, rather than the more 'cognitive' tasks of identification and recognition, is not phenomenologically salient. I address this issue at length at the end of this chapter. To do so now would be unwieldy. But for this argument to be compelling, this is a crucial objection to respond to.

Another way of responding to this argument against nonconceptualism is to deny that re-identification is really the criterion for demonstrative concept possession. This is an attractive option, since I was

unable to state a compelling argument for the re-identification constraint. However, I would still show that that there is an internal inconsistency in McDowell's position - the leading opponent to nonconceptualism.

### 2.3 *Pragmatic Content & The Generality Constraint*

I turn now to my second argument that pragmatic content is nonconceptual, that is, because it fails the generality constraint. To reiterate: the generality constraint can be stated as follows: possessing a concept 'a' of an object implies being able to think 'a is F', 'a is G', and so on for all concepts 'F', 'G'... of properties possessed by the subject; and possessing a concept 'F' of a property implies being able to think 'a is F', 'b is F', and so on for all of the concepts 'a', 'b',... possessed by the subject. An important difference between the generality constraint on concept possession and the re-identification constraint for demonstrative concepts, apart from the latter only applying to demonstrative concepts, is that the former is a synchronic constraint, whereas the latter is diachronic. So, I cannot argue on the basis that the pragmatic content of perceptual experience is not cross-temporally demanding. However, the first argument I used to show that the re-identification constraint is not is relevant here.

The argument here is a re-application of the argument used against the re-identification constraint. If the way an object appears to me as I perceive it now is dependent on how I am using it or preparing to use it, then the content that explains the phenomenology being as it is is tied to

my activity. If the content is tied to my activity in this way, tied to how I am using the object of the content, then for other objects I might attempt to think about or imagine as looking the same, objects which I am not using at that time in the same way, I will only be able to approximate to the object I am currently engaged with. It follows, then, if this argument is correct, then there are components to the content of my experience for which I fail the generality constraint, and therefore they are nonconceptual components of the contents of my experience. It is not just that they are nonconceptual, it is also the case that they resist conceptualisation, given that the generality constraint is a constraint on a content being conceptual.

There are two ways of responding to this argument. First, an opponent can argue that I am wrong about the phenomenology of experience, and that how things appear in cases of immersed activity is not essentially related to how the object is being used on that occassion. Second, an opponent can argue that the difference in phenomenology is not a difference in content, but rather a difference in qualia. The first response would require careful phenomenological description. I can't see how these could be truthfully given. The second response is a desperate move, and neglects the fact that there are conditions for using predicates such as 'within reach' or 'graspable' to describe how things appear to a subject.

There is also a separate argument from the empirical work that suggests that there is spatial content used to guide action which can be in play even if the generality constraint is not met. D.F. showed excellent

visual control of anticipatory hand posture, almost as good as normal subjects, when she was asked to reach out to pick up blocks of different sizes that she could not discriminate between perceptually. But when D.F. was asked to use her finger and thumb to make a perceptual judgement of the object's width on a separate series of trials, her responses were unrelated to the actual stimulus dimensions and showed high variation from trial to trial. Normal subjects, can accurately indicate the width of the blocks using their index finger and thumb and their responses were well correlated with the object dimensions. This suggests that there is pragmatic content, used for guiding action, in play, even though D.F. fails to meet the generality constraint.

It might be wondered why the kind of content I am arguing for is content at all. I have argued that there is a kind of visual content between sensory input and behavioural output required to explain, for instance, a subject's fine-grained movements in picking up a cup, the reaching phase and the grasping phase. It is introduced to explain the selection of movements appropriate to the action. But why can't we just say that it is stimulus-response behaviour based on hard-wiring from visual input to motor output. If there is pragmatic content, then it must not be the case that the behaviour in question is merely stimulus-response behaviour based on hard-wiring from visual input to motor output. Hard-wired connections between sensory input and behavioural output do not demand the attribution of contentful states. Consider an organism programmed to press a button each time it hears a two kilohertz tone. We can explain why it does it without saying that it is representing the tone. Registering the

relevant stimulus causes the appropriate response and can be fully understood, and explained and predicated without positing contentful states as intermediaries between stimulus and response. So, the kinds of cases I have been focusing must not be of the kind in which there is a connection between sensory input and behavioural output which is invariant.

The reason that stimulus response behaviour can be explained without reference to representational perceptual states is that the response is invariant, if the organism registers the relevant stimulus. We introduce the idea that the organism takes things to be a certain way only when invariant correlation breaks down. This can occur in two ways. First, the stimulus does not occur but the response occurs. Second, the stimulus occurs but without the response following. The way often occurs. A subject might be under an illusion, so that he reaches for and scales and forms his hand in preparing to grasp a cup, but the cup is not the shape he takes it to be, and this results in his grasping not be successful. Next time the subject has learnt that, in this context, the cup looks some way it isn't, he does not make the same movements again, but rather compensates based on his past experience. This suggests that representational states interact with other representational states. This most obviously occurs through the influence of stored representations, which explain adaptive behaviour based on past experience. These will not be pragmatic representations, since, so to speak, these are in the 'here and now', but rather stored representations that can interact with pragmatic representations. Empirical work shows that this is the case.

Jeannerod et al. observed that subject A.T.'s, an optic ataxic, grasping performance was improved when familiar objects were used as targets, instead of neutral objects.[43] In their experiment, these objects were of approximately the same size and shape as the neutral ones, but were clearly recognisable. With these objects, the correlation between maximum grip size and object size increased up to normal values, as did the rate of aperture of the grip. This contrasts with tests in which neutral objects were used of approximately the same size, in which correlation of grip size and shape with object size and shape was poor. This suggests that stored representations can be used to supplement pragmatic representations.

### 2.4 *Pragmatic Content & Phenomenology*

In discussing why spatial content used in guiding action fails the re-identification constraint, I noted that it was an empirical question as to whether this kind of content is phenomenologically salient. And I have also used evidence from D.F. to support my case, which is problematic, since D.F. has a severe deficit in her capacity to enjoy visual experience. I shall argue that we should not draw the conclusion that nonconceptual spatial content used in guiding action is not phenomenologically salient. I give evidence that this kind of content is associated with a visual system in the brain which has the specific purpose of guiding action, but deny that this

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[43] Jeannerod, M, Decety, J, and Michel, F, (1994): "Impairment of grasping movements following a bilateral posterior parietal lesion", *Neuropsychologia*, 32, p.369-380.

system has no role to play in our having visual experience. Characterising the 'two visual systems hypothesis' provides a functional and anatomical background from which adds weight to the notion of spatial content that I have been arguing for. This discussion also leads into recent work by Jeannerod on a distinction between pragmatic and semantic representation at the neurophysiological level. The notion of pragmatic content at this level reflects the phenomenological notion of pragmatic content.

Milner and Goodale write:

> ...the visual processing underlying 'conscious' perceptual judgements must operate separately from that underlying the 'automatic' visuomotor guidance of skilled actions of the hand and limb.[44]

The dorsal stream is taken to be the area of the brain responsible for visuomotor guidance of skilled actions, and the ventral stream is taken to be the part of the brain responsible for visual processing underpinning perceptual judgement, that is, it deals with object recognition and identification. I shall characterise the anatomical difference between the dorsal stream and the ventral stream. 80 percent of retinal ganglion axons project to the LGN, the lateral geniculate nucleus. From here, neurones project, via the optic radiations, to the main visual cortex, the striate cortex or V1. From the next stage, V2, axons project in different directions. Some project through the middle temporal cortex (MT), and from there, to

[44] See Goodale, M, Milner, A, Jakobson, L, and Carey, D, (1991): "Perceiving the world and grasping it. A neurological dissociation", *Nature*, vol. 349, p154-156; and see Milner, A, Perrett, D, Johnston, R, Benson, P, Jordan, T, Heeley, D, Bettucci, D, Mortara, F, Mutani, R, Terazzi, E, and Davidson D, (1991): "Perception and action in 'visual form agnosia', *Brain*, 114: 405-428.

the superior temporal cortex (FST) and the medial superior temporal cortex (MST) - these fall within the posterior parietal lobe. This route is called 'the dorsal stream'. Others project, from V1 and V2, to V4 and then to the posterior inferotemporal area (PIT), and then to the anterior inferotemporal area (AIT). This route is called 'the ventral stream'. The other 20 percent of the retinal ganglion axons project from the retina to the superior colliculus (SC), which projects to the pulvinar and V1 via LGN, and some axons project from V1 to both the pulvinar and SC. The pulvinar projects both to the dorsal stream, MT, and ventral stream, V4, but mainly the dorsal stream.

Ungerleider & Mishkin hypothesised that these two cortical streams divide functionally.[45] The ventral stream was thought to compute object recognition features. These are often described as intrinsic properties of objects, and include the object's shape, colour, and so on. The dorsal stream was thought to compute location. This is usually called the 'what' / 'where' distinction. It is thought that PIT, in the ventral stream, subserves the 'what' processing and MT and MST, in the dorsal stream, subserves the 'where' processing. Ungerleider & Mishkin write: "...an appreciation of an object's qualities and of its spatial location depends on the processing of different kinds of visual information in the inferior temporal and posterior parietal cortex, respectively".[46]

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[45] Ungerleider, L, and Mishkin, M. (1982): "Two cortical visual systems". In ed. Ingle, D, Goodale, M, and Mansfield, R, *Analysis of Visual Behaviour*. Cambridge: MIT Press. p.549-586.
[46] Ibid. p.586.

Goodale and Milner argue that, although there is an anatomical and functional distinction between the two cortical routes, the 'what' / 'where' distinction is inaccurate. They propose a revised model, in which the dorsal stream provides the neural processing for visually controlled saccades, and for reaching and grasping. This requires information about the size, shape, texture, and orientation of the an object - this is clear in cases of grasping an object. Milner and Goodale propose that this information is coded egocentrically i.e. using viewer-centred co-ordinates. The locations of the objects, for instance, are encoded with respect to the orientation of the viewer's head or retina. By contrast, the ventral stream provides the neural processing for coding object features and location allocentrically i.e. the co-ordinate system is object-centred. The ventral system is taken not only to code intrinsic features of objects but also location. One possible reason is that object-recognition may require computing the location of an individuated object, since this might include information required for representing what kind of object it is.

Milner and Goodale provide neurophysiological and neuropsychological evidence for this distinction. I shall focus on the neuropsychological evidence.[47] I shall outline a case of optic ataxia (a reaching, grasping and manual orientation disorder) and visual form agnosia (an inability to perceive objects accurately). Patient RV, with a lesion producing a disconnection of parietal cortex from visual input, was observed by Goodale et al. RV was tested on two tasks, a grasping task

[47] Goodale, G, Meenan, J, Bulthoff, H, Nicolle, D, Murphy, K, and Racicot, C. (1994): "Separate neural pathways for the visual analysis of object shape in perception and prehension". *Current Biology*. 4: 604-610.

and a size matching task. RV was presented with wooden shapes which she had either to grasp or to compare with each other in pairs. RV was unable to use visual information about object shape to correctly place her fingers and to make accurate grasps. By contrast, she performed close to normal in the shape comparison task. This suggests that impaired grasping is a consequence of the damage of the dorsal system, ventral stream processing remained largely intact.

A double dissociation requires finding a subject with impaired visual identification but whose object-oriented action is unimpaired. Goodale et al. and Milner et al. studied DF. [48] DF had a large lesion in the occipital area. Testing showed that DF's performance for visual acuity and colour discrimination was subnormal. The patient's perception of simple forms and shape, and size detection were at chance, and consequently, DF could not recognise objects. Detection of line orientation was also at chance. In contrast, in the line orientation test, if DF responded by using reaching movements where the subject orientated her hand through a slit, her responses were accurate. DF when reaching for objects performed accurate prehension movements, with the size of her finger grip normally correlated with object size.

These experimental results constitute a double dissociation between vision for action and vision for object recognition. And, specifically, they

[48] See Goodale, M, Milner, A, Jakobson, L, and Carey, D, (1991): "Perceiving the world and grasping it. A neurological dissociation", *Nature*, vol. 349, p154-156; and see Milner, A, Perrett, D, Johnston, R, Benson, P, Jordan, T, Heeley, D, Bettucci, D, Mortara, F, Mutani, R, Terazzi, E, and Davidson D, (1991): "Perception and action in 'visual form agnosia', *Brain*, 114: 405-428.

suggest that the transformations carried out in the ventral stream permit the formation of representations of enduring qualities of objects, whereas visuomotor transformations carried out in the dorsal stream, which process for spatial properties that mediate the control of goal-directed action, do not permit the formation of representations used in overt identification or recognition.

DF's inability to report on the spatial properties of the object to which she responds is evidence for her not being aware of them. These kinds of considerations lead Milner and Goodale to write:

> Visual phenomenology... can arise only from processing in the ventral stream, processing that we have linked with recognition and perception.[49]

Milner and Goodale base their claim on cases of blindsight and visual form agnosia. In both cases there is residual visuomotor ability, but no experience of the visual stimuli. My case for 'pragmatic' nonconceptual content would be considerable weakened if Milner and Goodale are right, because I rely on evidence from D.F., and it is open to the conceptualist to argue that the content that guides action, which accounts for the fine-grained movements in action, is not phenomenologically salient. However, it is important to note that in both kinds of case there is no visual input from V1.

Since most of the visual input into the dorsal and ventral systems comes through V1, we should expect that a lesion or cooling of V1 will

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[49] Milner, A, and Goodale, M. (1995): *The Visual Brain in Action*. Oxford: OUP. p.200

abolish, or greatly diminish, visual abilities mediated by the two pathways. Visual neuronal responsiveness is completely abolished in the ventral pathway, and greatly diminished in the dorsal pathway. Only areas V3a and MT of the dorsal pathway continue to receive significant input, which comes via the superior colliculus and the pulvinar.[50] Traditionally, the subcortical pathway of the pulvinar and the superior colliculus has been associated with primitive visuo-motor responses found in primates and non-primates, such as hamsters.[51] This subcortical pathway was found to be of less importance for visually guided behaviour than originally thought. [52] Bullier et al. conclude that the subcortical pathway responsible for visual responses in the dorsal stream in the absence of V1 forms part of a primitive organisation of the visual system, which is common to both primates and non-primates.[53] It is responsible for fast, crude, and non-conscious processing of visual input.

There is further evidence that the type of visual function carried out in the dorsal system is underestimated by focusing on patients like DF.[54] Unlike a normal subject, DF cannot rotate her hand to match the orientation of a cross that she had been asked to grasp. On contact, she grasped and rotated the cross with the same ease as did normal subjects.

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[50] Bullier, J, Salin, A, and Girard, P. (1991): "Visual Activity in Areas V3a and V3 During Reversible Inactivation of Area V1 in the Macaque Monkey". In *Journal of Neurophysiology*. Vol.66. No.5. p.1493-1503.
[51] See, for instance, Schneider (1969): "Two visual systems". *Science*. 163: 895-902.
[52] See, for instance, Ungerleider, L, and Mishkin, M. (1982): "Two cortical visual systems". In ed. Ingle, D, Goodale, M, and Mansfield, R, *Analysis of visual behaviour*. Cambridge: MIT Press. p.549-586.
[53] Bullier, J, Salin, A, and Girard, P. (1994): "The role of area 17 in the transfer of information to extrastriate visual cortex". *Cerebral Cortex*. 10: 301-330.
[54] Carey, D, Harvey, M, and Milner, A. (1996): "Visuomotor sensitivity for shape and orientation in a patient with visual form agnosia". *Neuropsychologia*. 34: 329-337.

This is consistent with Goodale et al.'s study.[55] They found that DF made errors when attempting to post a 'T' shaped form. This seems inconsistent with the finding that she could pick up irregular shapes using grasp points much like normal subjects. Carey et al. explain this in terms of DF not being able to use form to guide her movement. This means that she cannot integrate more than one orientation together in exercising visuomotor control. Carey et al. hypothesise that DF's successful grasping of smooth irregular shapes is explained by representing orientation of the major axis combined with representing its size. This is sufficient for generating grasp patterns of the sort displayed. However, these results suggest that DF cannot combine visual orientations into a shape for the control of a visuomotor act. In contrast, full dorsal stream processing is expected to be sufficient for representing shape for the control of visuomotor acts. Carey et al. point out: "...any inferences derived from studying DF could underestimate the visual capacities of normal dorsal stream".[56] Given what we know about the residual functioning of the dorsal system in DF's case, this is a cautious way of putting it.

There are other experimental considerations which seem to suggest that vision for action is not phenomenologically salient. Dissociations can occur between actions in response to visual stimuli and conscious experience of the same stimuli. Awareness of the visual stimuli depends on the temporal demands of the task. Castiello et al. measured temporal

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[55] Goodale, G, Meenan, J, Bulthoff, H, Nicolle, D, Murphy, K, and Racicot, C. (1994): "Separate neural pathways for the visual analysis of object shape in perception and prehension". *Current Biology*. 4: 604-610.
[56] Carey et al. Ibid. p336.

dissociations.[57] Subjects were instructed to reach by hand an object placed in front of them, as soon as it became illuminated. It took 330ms to start moving and 380ms for the vocal response to appear. Castiello at al. also observed that the time to awareness of a visual event, as inferred from the vocal response, keeps a relatively constant value across different conditions. Under normal conditions - i.e. when there is no time pressure - the value coincides with the value designating the time the movement starts.

Since the dissociation between motor response and visual experience of the stimuli only occurs in cases in which fast motor responses are required. This suggests that it is the 'primitive' subcortical system which causes these motor responses. I suggest, then, that we shouldn't conclude that the dorsal system is not associated with visual experience on the basis of considerations of blindsight, visual form agnosia, and visual tasks involving high temporal demands.

More positively, there is reason to believe that the dorsal system has an important role in our having visual experience. The ventral system is responsible for object identification. Marr has argued that operations like identifying require object-centred representation, rather than a body-centred representation.[58] For instance, the shape of an object may be important in recognising it. Shape should be recognisable from all vantage points, and this can only be achieved if the co-ordinate system is

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[57] Castiello, U, Paulignan, Y, and Jeannerod, M. (1991): "Temporal dissociation of motor responses and subjective awareness. A study in normal subjects". In *Brain*, 114: 2639-2655.
[58] Marr, D, (1982): *Vision*, New York: W.H. Freeman and Co.

independent of the position of the viewer with respect to the object. This means that its function strongly suggests that it processes in object-centred co-ordinates. However, we visually experience the world in viewer-centred co-ordinates. The dorsal system, at least for reaching, deals with the object as a locus in body-centred space, and accordingly is built in a body-centred system of co-ordinates. This suggests that the dorsal system has an important role to play in our having viewer-centred visual experiences of our surroundings.

An important further development is attributable to Faillenot at al.'s PET study.[59] It suggests that object-orientated action and object recognition activate a common posterior area in which object-centred spatial analysis takes place there. Subjects were instructed either to make a shape judgement on non-verbalisable objects (i.e. objects with irregular shapes) of different shapes and sizes, or to grasp them. The two tasks are not equivalent, because making a shape judgement is devoid of any motor component. Pointing was used as a third condition for subtracting from grasping as much of its motor component as possible. In the case of grasping, object size, volume and shape are analysed for programming and executing prehension movements. In the case of matching, the analysis of object shape is made for the purpose memorising and comparing. The grasping and the matching tasks were associated with a cerebral bloodflow increase in the intra-parietal sulcus (areas 40 and 7). Both tasks require

[59] Faillenot, I, Toni, I, Decety, J, Marie-Claude, G, and Jeannerod, M. (1997): "Visual pathways for object-orientated action and object recognition: functional anatomy with PET". In *Cerebral Cortex*, 7: 77-85.

visual processing in order to analyse the size, volume, and orientation of the object irrespective of its spatial location.

Faillenot at al. suggest that this mechanism would be distinct from the analysis of shape mediated by the temporal cortex, and its exclusion by a lesion would not prevent object recognition. Jeannerod has recently given a different interpretation.[60] He agrees that the area common to matching and grasping in the parietal lobe processes for three dimensional aspects of object shape, but claims that the infero-temporal area is related to purely semantic processing.

The immediate response is that parietal lesions do not usually affect object recognition, and plausibly object recognition depends on shape analysis. Jeannerod responds by claiming that constructional apraxics, with parietal lesions, are unable to assemble object parts for producing a coherent whole, especially when instructed to draw objects in perspective.[61] This suggests that impaired analysis of three dimensional features of objects does not imply impaired object recognition. Jeannerod suggests that the results of the PET study and reflection on cases of constructional apraxia suggest the existence of a specific mode of object perception for the purpose of generating action, which involves the perception of three dimensional spatial properties of objects. These considerations do not support the view that we should identify the dorsal system with a pure action system distinct from perception, rather, the study suggests that

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[60] Jeannerod, M. (1997): *The Cognitive Neuroscience of Vision*. Oxford: Blackwell. p.73-74.
[61] See, for instance, De Renzi, E. (1982): *Disorders of Space Exploration and Cognition*. New Work: Wiley.

dorsal processing plays in important role in our perceiving a three dimensional spatial environment, and that our overt identification and recognition of things in our environment, semantic processing, is largely independent of this. So, this is further evidence against the view that the dorsal system is a pure on-line visuo-motor system, with no role in perception, and a pure ventral perception system used for shape analysis and object recognition.

These kinds of considerations have led Jeannerod to replace the dorsal 'action' versus ventral 'perception' distinction with a distinction between 'pragmatic' and 'semantic' representation which corresponds largely but not strictly with the anatomical distinction between the ventral and the dorsal stream.[62] The dorsal system is largely responsible for pragmatic representation. Semantic representations are used in identifying objects. In contrast, pragmatic representations represent specific object attributes to the extent that they trigger movements appropriate to the action. This empirically motivated distinction maps onto the distinction I have been arguing for.

Finally, Milner's and Goodale's claim that only the ventral system is associated with visual phenomenology. They do not assign a function to visual phenomenology, but associate it with a visual system that has a specific function, recognition and categorisation. We have seen that given the egocentric spatiality of experience that this is implausible. It should

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[62] See Jeannerod, M, (1997): *The Cognitive Neuroscience of Action*, Oxford: OUP, esp. ch3; and also see Jeannerod, M, (1994): "Object Orientated Action", in ed. Bennett, K, and Castiello, U, *Insights into the Reach to Grasp Movement.*

not be assumed without argument that visual phenomenology is an output of either system. All that we should say is that there is good reason to believe that the dorsal system has a role to play in having visual phenomenology and so probably does the ventral stream.

**Chapter three:**

## 3.0 *McDowell's Argument Against Nonconceptualism*

It may be argued that my arguments for nonconceptualism should be resisted because only conceptual content can be content. McDowell argues that the only conceptual contents are contents of experience. The following argument is a clear way of setting out the core of his argument:

1. Perceptions have nonconceptual content.
2. Perceptions are reasons.
3. Reasons are subject to subjective reflection.
4. (2) & (3) ⊃ perceptions are subject to subjective reflection.
5. (1) ⊃ perceptions are not subject to subjective reflection.
6. So, perceptions are subject to subjective reflection.
7. So, perceptions are not subject to subjective reflection.

A contradiction has been reached. The argument is valid. McDowell claims that (1) is false.

I shall provide textual support for this interpretation of McDowell's argument against the nonconceptualist. By 'space of reasons', McDowell refers to whatever counts as reasons for judging. I'll start with (2). McDowell argues that empirical knowledge is possible only if perceptions can count as reasons for perceptual beliefs. The following quote bears this out:

...we can have empirical content in our picture only if we can acknowledge that thoughts and intuitions are rationally connected.[63]

We can read 'thought' as including 'judgements' and 'belief', and 'intuition' as 'perceptual experience'. In relation to (3), McDowell writes:

If...[reason-giving] relations... are to be genuinely recognisable as reason-constituting, we cannot confine spontaneity [or active thinking] within a boundary ...[64]

If this general constraint on reasons holds, then it follows that perceptions, given that they are reasons, must be subject to subjective reflection. McDowell writes this in the context of attacking nonconceptualism i.e. that nonconceptual perceptions cannot be reasons because they are not subject to rational reflection. He believes that (5) is true.

3.1 *Perceptions as reasons.*

I am prepared to accept that (2) is true. This means that I believe that the doxastic assumption is false. The assumption holds that only beliefs can be reasons for beliefs, or to be more precise, it holds that the justifiability of a belief is a function of what beliefs the subject of the belief holds.

There is a problem implies by the doxastic assumption. If each belief is justified only if an epistemically prior belief is justified, and that

[63] McDowell, J, 1994, *Mind and World*, Cambridge, Mass.: Harvard University Press.
[64] Ibid. p.57.

epistemically prior belief is justified only if a still prior belief is justified, and so on, then result, so long as each new justification is inferential in character, is that justification can never be completed, or can never get started. The conclusion is that there is no justification and so no empirical knowledge.

There are four responses consistent with the truth of the doxastic assumption. That the regress might terminate with beliefs which are offered as justifying premises for earlier beliefs but for which no justification of any kind, however, implicit, is available when they are challenged in turn. Second, the regress might continue indefinitely, so more and more empirical premise-beliefs being introduced, and no belief is repeated in the sequence and yet no end is ever reached. Third, the regress might circle around back upon itself, so that if demand for justification is pushed far enough, beliefs which have already appeared as premises earlier in the sequence of justificatory argument are again appealed to. Fourth, the regress might terminate because 'basic' empirical beliefs are reached, beliefs which have a degree of epistemic justification which is not inferentially dependent on other empirical beliefs. Options three and four are the coherence option and the foundation option respectively.

I agree with McDowell that both foundation theories of justification and coherence theories of justification are false.[65] There are a variety of foundation theories.[66] But they all have in common the thesis that some

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[65] See McDowell, J, ibid. lecture one.
[66] For example, see Lewis, C.I., (1946): *An Analysis of Knowledge and Valuation*, LaSalle: Open Court; and Chisholm, R, (1977): *Theory of Knowledge*, 2nd edition., Englewood Cliffs, NJ: Prentice-Hall.

empirical beliefs have a degree of non-inferential epistemic justification, justification that does not derive from other empirical beliefs in a way which would require those beliefs to be antecedently justified. There are a variety of coherence theories.[67] Coherence theories deny that there is any such privileged class of beliefs. According to these theories, the justifiability of a belief is still a function of what beliefs you have but none has a special epistemic status.

I shall not discuss arguments against the foundation theory. In this work, I do not want to argue that premise two is false. However, McDowell focuses on attacking the coherence theory of justification. My reason for interpreting his main argument against such theories is that it motivates an explanatory objection incurred by nonconceptualist, an obligation to explain how nonconceptual perceptions can be reasons for empirical judgements, and it brings out a potentially fatal problem if this obligation cannot be met. Also, in interpreting McDowell's argument for the claim that reasons must be subject to subjective reflection, my interpretation of what McDowell's argument might be parallels much of the reasoning McDowell, as I interpret him, employs against the coherence theory.

McDowell focuses on Davidson's theory, but his main objection applies in general to coherence theories. Davidson believes that foundation theories are false; he writes:

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[67] See for example, Quine, W.V., and Ullian, J, (1978): *The Web of Belief*, 2nd edition, New York: Random House; Bonjour, L, (1985): Bonjour, L, (1985): *The Structure of Empirical Knowledge*, Cambridge, Mass.: Harvard University Press; and Lehrer, K, (1974): *Knowledge*, Oxford: OUP. In particular, see Davidson, D...

What distinguishes a coherence theory is simply the claim that nothing can count as a reason for holding a belief except another belief...[68]

Furthermore, he writes:

The relation between a sensation and a belief cannot be logical, since sensations are not beliefs or other propositional attitudes. What then is the relation? The answer is, I think, obvious: the relation is causal. Sensations cause some beliefs and in *this* sense are the basis or ground of those beliefs. But a causal explanation of a belief does not show how or why the belief is justified. [69]

We can read 'logical' as 'rational'.

McDowell argues that our perceptions stand in reason-giving relations and not merely causal relations to our perceptual beliefs, because if they did not, then it would be the case that our beliefs lack empirical content. He writes:

Thoughts without intuitions are empty, and the point is not met by crediting intuitions with a causal impact on thoughts; we can have empirical content in our picture only if we can acknowledge that thoughts and intuitions are rationally connected.

McDowell does not give a clear argument for this claim. This means that the following interpretation is guesswork to some extent. An argument of Pollock's against the coherence theory gets at an important element of McDowell's argument, although the conclusion of Pollock's argument is less radical.[70]

Suppose that the only belief changes that are subject to rational epistemic evaluation are those made exclusively in response to your other

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[68] See Davidson, D, "A Coherence Theory of Knowledge", in ed. Lepore, E, (1986): *Truth and Interpretation*, London: Blackwell, p.310.
[69] Ibid. p.311.
[70] Pollock, J.L., (1986): *Contemporary Theories of Knowledge*, London: Century Hutchinson, p.87-92.

beliefs. Facts about your perceptual situation, such as how your are appeared to, can be relevant to the epistemic evaluation of your perceptual belief only insofar as you believe those facts. In normal cases we have no such beliefs about how we are appeared to. Because perceptual beliefs cannot be inferred from other beliefs, there is no way to consider a potential perceptual belief before acquiring it. It would only be possible to decide whether or not to acquire a perceptual belief if we have appearance beliefs and decide whether or not the adopt the perceptual belief in response to the appearance belief. This would be to endorse a version of the foundation theory. And assuming such foundation theories are false, it follows that in normal cases, there can be no evaluation of a potential perceptual belief, because we have to acquire them before we can evaluate them in terms of what other beliefs we have. Pollock writes:

> ...suppose you know you are in a room bathed in red light... and you know the effect this has on the colours things look. Under these circumstances, if your see a piece of paper before you and it looks red, you would be unjustified in making the perceptual judgement that it is red. It is not just that you would be unjustified in retaining that belief once you acquire it - you should not acquire it in the first place. You 'know better'.[71]

McDowell's argument goes further than these considerations. I suggest that the essential point concerns your standing in deciding whether or not to retain the belief that this piece of paper is red. Your epistemic evaluation concerning your decision to retain or not this belief is a function entirely of how well it is coheres with your other beliefs. Since in this case it does not cohere well, you should reject it. But the problem with this picture is that your epistemic evaluation is made in a way that is not rationally sensitive to your perception. Since perception is our only mode of

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[71] Ibid. p.89-90.

access to the world, it is not rationally sensitive to how the world is. It may be for this reason that McDowell claims that empirical content drops out of the picture. He assumes that the contents of empirical beliefs are wholly determined in their rational relations.[72] If this assumption is true, then the content of your belief that this piece of paper is red is determined wholly by your existing beliefs. But normally your antecedently held beliefs will not normally determine whether upon examining a new object, you should believe that it is red or green. You have to look to determine whether or not its red or green. But, on this view, your perception cannot determine it either. This, I think, is at least some of what McDowell is driving at.[73]

Davidson's coherence theory employs apparatus that purports to establish a suitable connection between belief and world. He aware that:

> ...there remains a question of how, given that we cannot 'get outside of our beliefs...', we nevertheless can have knowledge of, and talk about, an objective public world which is not of our own making.[74]

Davidson claims that we can interpret each other only if most of our cohering beliefs are true. Davidson holds that "...truth is correspondence

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[72] McDowell dismisses theories of naturalised semantics, see, e.g. Fodor, J, (1987): *Psychosemantics*, Cambridge, Mass.: MIT Press; and Dretske, F, (1981): *Knowledge and the Flow of Information*, Cambridge, Mass.: MIT Press. There is much to be said on this matter, however, the response I give to McDowell's argument against the nonconceptualist does not assume a naturalised semantics.
[73] It should be noted that Davidson's version of the coherence theory includes apparatus that may make it immune from McDowell's argument. McDowell does not argue against Davidson's theory in adequate detail or depth.
[74] McDowell dismisses theories of naturalised semantics, see, e.g. Fodor, J, (1987): *Psychosemantics*, Cambridge, Mass.: MIT Press; and Dretske, F, (1981): *Knowledge and the Flow of Information*, Cambridge, Mass.: MIT Press. There is much to be said on this matter, however, the response I give to McDowell's argument against the nonconceptualist does not assume a naturalised semantics.

with the way things are".[75] He takes very general attitudes towards sentences as the basic evidence for a theory of interpretation and writes:

> ...if we merely know that someone holds a certain sentence to be true, we know neither what he means by the sentence nor what beliefs his holding it true represents... the problem of interpretation is to abstract from the evidence a workable theory of meaning and a workable theory of belief.[76]

The interpreter will not be able to interpret the speaker's speech unless he knows a good deal about what beliefs the speaker has. Making fine distinctions between what beliefs the speaker has will depend on understanding speech. Partly because of this interdependency the interpreter must be charitable. This means that he must attribute to the speaker a set of largely true beliefs. Suppose that the interpreter does not assume that the speaker has largely true beliefs. The interpreter will not be able to assume that the assertion conditions for some sentence reveal what the speaker believes.

Davidson goes further in claiming that not only is a largely true set of beliefs attributed to the speaker, but also largely the same beliefs as the interpreter. He writes:

> ...if all we know is what sentences a speaker holds true, and we cannot assume that his language is our own, then we cannot take even a first step towards interpretation without knowing or assuming a great deal about the speaker's beliefs. Since knowledge of beliefs comes only with the ability to interpret words, the only possibility at the start is to assume general agreement on beliefs.

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[75] Davidson, D, "On the Very Idea of a Conceptual Scheme", in (1984): *Inquiries into Truth and Interpretation,* Oxford: OUP, p.196.

If when the assertion conditions obtain which prompt the speaker to assent to sentence S, the interpreter has no option but to assume that the truth conditions of the sentence held true are those conditions that the interpreter himself believes to obtain. And so, from the interpreters point of view, there is no way to discover that the speaker is largely wrong about the world. In general, he cannot identify the conditions for holding sentences true and not assume that these are the truth conditions for these sentences, because he has no other evidence available for interpretation.

What follows so far is that if we want to understand others, then we must count them right in most matters. This is consistent with speaker and interpreter understanding one another on the basis of shared beliefs that they take to be true but which are false. Davidson claims that this possible locally but not possible globally. Suppose that there is an all-knowing interpreter who knows everything about the world and the conditions of assertion for any speaker's sentences in his stock. He must find the subject he is interpreting largely consistent and correct by his own standards. Since the all-knowing interpreters standards are objectively correct, it follows that the speaker is largely correct and consistent by objective standards. Suppose that all-knowing interpreter interprets a fallible interpreter of a fallible speaker. It follows that the fallible speaker can be wrong on some things but not in general.

It is not clear that Davidson's argument is an adequate response to McDowell's argument. For we should ask what determines the empirical

content of a subject's perceptual belief on a particular occasion. We have seen that a subject's antecedently held beliefs is not sufficient to do it. And if we assume that the content of empirical belief is wholly determined in its rational relations, then, given Davidson's coherence theory, the subject's perception cannot function to determine the empirical content of his perceptual belief. The Davidsonian needs to say what determines the empirical content of a perceptual belief on a particular occasion.

### 3.1.1 *Pragmatic Content: A Possible Response*

I have not claimed that perceptions do not have conceptual content. I have claimed that perceptions have a kind of spatial content that is used in guiding actions which is nonconceptual. This means that I could claim that perceptions must be reasons, but are reasons only in virtue of the conceptual content that they have, and that the nonconceptual content used in guiding actions does not bestow any reason-giving properties on perceptions.

I have argued that pragmatic content is part of the content of perceptual experience. This means that a subject's behaviour, his reaching and grasping performance, is explained by how he takes things to be, where the content involved is nonconceptual pragmatic content. No doubt pragmatic content causes his movements. But a subject's movements should make sense from his point of view, or be intelligible to him, as something he is doing on the basis of how he takes his surroundings to be. So, if asked why he moved in the way he did, he can give a reason, he can

appeal to the way things appeared to him. Pragmatic content should rationally explain a subject's behaviour, and provide the subject with a potential reason or rational explanation for how he is behaving. For this reason, this response to McDowell is inadequate.

### 3.2 *Peacocke's Account of Nonconceptual Perceptions as Reasons*

So, perceptions must be reasons. It needs to be shown how there is a truth preserving connection between the nonconceptual content of a veridical nonconceptual perception, and the conceptual content of a judgement made by taking the perception at face value. Peacocke gives a detailed explanation of this. He constructs a theory which has the resources to explain how judgements made on the basis of nonconceptual veridical experiences will be true. It shows how the correctness of a nonconceptual content ensures the correctness of the content of a judgement based upon it. However, although it goes some way to showing how perceptions can be reasons for empirical judgements, it falls short of showing how the contents of nonconceptual perceptions are subject to rational evaluation.

Peacocke claims that a concept is individuated by a correct and noncircular statement of what has to be true of the thinker to possess it. The form of the statement is:

- The concept F = that concept C to possess which a thinker must meet the condition A(C).

To avoid circularity, the concept F is not mentioned within the scope of the subject's propositional attitudes described in A(C). In particular, for an observational concept, A( ) will mention the thinker's willingness to apply the concept to perceptually given objects on the basis of certain kinds of perceptual experience.

Peacocke stresses that if a concept individuated by its possession condition, together with how the world is, determines its semantic value, it needs to be shown how the possession condition, together with how the world is, determines a semantic value. If it is not shown, then the claim that concepts are individuated by their possession conditions will not have been established. Since possession conditions mention belief in contents containing concepts. Belief has truth as an aim and the truth of the content of a belief depends on the referent of its conceptual constituents.

The semantic-value fixing relation holds between A(C) and the property of redness if the concept 'red' individuated by A(C) has the property of redness as its semantic value. The correct specification of the value-fixing relation for A(C) is called a 'determination theory'. It states how A(C), together with how the world is, determines the semantic value of the concept F, and it implies the correctness of belief forming methods mentioned in A(C), of which I shall say more.

It is instructive to consider a couple of examples. Conjunction is that concept C to possess which a thinker must find transitions that are

instances of the following form primitively compelling, and must do so because they are of the forms:

| | | |
|---|---|---|
| p | | |
| q_____ | p C q | p Cq |
| p C q | p | q |

To say that the thinker finds such transitions primitively compelling is to say: (i) he finds them compelling; (ii) he does not find them compelling because he has inferred them from other premises and/or principles; (iii) for possession of the concept C in question, he does not need to take the correctness of the transition as answerable to anything else. The determination theory for the possession condition would state the truth function that is the semantic value of conjunction which is just that function that makes all transitions of the forms mentioned truth-preserving.

Another example is as follows. The concept 'red' is that concept C to possess which a thinker must meet two conditions (I shall omit the second condition): he must be disposed to believe a content that consists of a singular perceptual-demonstrative mode of presentation m in predicational combination with C when the perceptual experience that makes m available presents its object in a red' region of the subject's visual field and does so in conditions he takes to be normal, and when in addition he takes his perceptual mechanisms to be working properly; the thinker must be disposed to form the belief for the reason that the object is so presented.

The determination theory of the possession condition for the concept 'red' assigns a function from objects to truth-values to the concept 'red' in such a way that someone forming beliefs about the redness of objects in accordance with the possession condition for red will form true beliefs: the transitions will be truth-preserving.

In general, Peacocke holds that when a belief, a perception, and so on, justifies a thinker's acceptance of content, it does so ultimately in virtue of some feature of the possession condition of the content's constituent concepts. Suppose that the content a is F consists of a predication of an observational concept combined with a perceptual-demonstrative concept. What justifies accepting the content a is F is having the kind of perceptual experience that contributes to the individuation of the observational concept, F, and having various beliefs about the proper functioning of your perceptual mechanisms and the normality of the environment. The link between justification and possession conditions is explained by the fact that determination theories associated with possession conditions assign semantic values to concepts in such a way as to ensure that the belief forming methods mentioned in the possession conditions lead to the formation of true beliefs. If the possession conditions for 'a' and 'F' entail that my having an experience of a is F and the relevant beliefs, then I will judge that a is F, if the question arises. If my experience is veridical and the content of my beliefs are true, then because of the way the semantic values are assigned to the concepts, it follows that the content of my judgement is true.

It is useful to consider a particular example. Assume that the nonconceptual content of experiences of the kind mentioned in the possession condition for the concept 'square' concern the straightness of certain lines, the symmetry of a figure about the bisectors of those lines, the identify of certain lengths, and the rightness of certain angles. Peacocke claims that such experiences give a thinker who possesses the observational concept square not merely reasons but good reasons for forming the belief that the presented object is square. This is implied by the conditions required for the belief 'That's square' to be true. If thinker's perceptual systems are functioning properly, so that the non-conceptual content of his experience is correct, then when such experiences occur, the object thought about really will be square and so his belief that that's square will be true. The rational linkage turns on the fact that when the correctness condition of the experience is fulfilled, the object is square, and so the judgement is true.

McDowell objects that this is not sufficient to meet the demand for subjective rational reflection, that the subject can entertain in thought how things appear to him, so that he can rationally decide whether or not to believe that things are so. It is objected that Peacocke has shown how correctness of conditions of correctness for the nonconceptual content of an experience ensures the correctness of the content of a judgement formed on the basis of it, the content of which contains concepts which have possession conditions which mention that kind of experience. McDowell writes:

...this falls short of establishing what Peacocke needs: namely, that non-conceptual content attributable to experiences can intelligibly constitute *a subject's reason for* believing something.[77]

McDowell's objection turns on the distinction between a reason why a subject's does or judged something, and a subject's reason for doing or judging something. The reason why a subject believes what he does is because, given the concepts he possesses, which are constituents of the content of the belief, he is primitively disposed to believe that things are so if he has the kind of experience mentioned in the possession conditions for the concepts. McDowell concludes:

...Peacocke ...has to sever the tie between reasons for which a subject thinks as she does and reasons she can give for thinking that way. Reasons that the subject can give, in so far as they are articulable, must be within the space of concepts.[78]

He considers only one way in which Peacocke's account could be supplemented so that a subject can be said to possess a reason for judging that things are so. The suggestion is that the subject would need to in possession of Peacocke apparatus for talking about nonconceptual content: the concepts of scenario, protopropositional content, and so on, from which the subject could construct an argument if challenged to give his reasons for judging that this are so. This is obviously a supplementation that the nonconceptualist cannot accept. The problem, then, is that it still may need to be shown that a subject can think about how things appear to him and so evaluate the inferential the force of his perception. There is nothing in Peacocke's account that would meet this demand, although his account goes a long way in discharging the explanatory obligation to say how

[77] McDowell, ibid. p.163.
[78] Ibid. p.165.

nonconceptual perceptions can be reasons for believing the world to be one way rather than another.

### 3.3 *Reasons Are Subject to Rational Reflection*

McDowell does not provide a clear argument for the claim that reasons must be subject to rational reflection. I shall provide an interpretation. The argument is similar to the argument used against the coherence theory. McDowell writes:

> If these relations are to be genuinely recognisable as reason-constituting, we cannot confine spontaneity within a boundary across which the relations are supposed to hold. The relations themselves must be able to come under the self-scrutiny of active thinking.

It follows that if perceptions are reasons, then they must also come under the scrutiny of subjective reflection. In arguing for this claim, I shall consider an example involving a perception as a reason.

For a perception to bear a reason-giving relation to a belief why must the relation be rationally evaluable? Suppose that it appears to me as if there is a red piece of paper before me. If I could not even think about how things appear to me, then I could not evaluate whether or not my being appeared to in this way makes probable or implies the thought that there is a red piece of paper before me. So, my decision whether or not to believe that there is a red piece of paper before me would not be rationally sensitive to how I am appeared to, and that is to say that my experience would not be a my reason for my judging that there is a red piece of paper

before me. These considerations suggest that if my perception is my reason for judging such and such, then I must be able to think about how I am being appeared to, that is, I must be able to entertain in judgement a proposition to the effect that it appears to me as if such and such, which allows me to evaluate the inferential force of my perception in light of my existing beliefs.

### 3.4 *Nonconceptualism and Subjective reflection*

Suppose that it appears to me as if $a$ is $F$. My evaluating the inferential force of my perception requires that I think about the fact that it appears to me as if $a$ is $F$. It does not immediately follow that I cannot do this if the content of my perception is nonconceptual. So, the nonconceptualist can interpret McDowell's argument as a challenge to explain how if perceptual content is nonconceptual content, judgements about how things appear can play a central role in the rational evaluation of reasons perceptions give us for our beliefs. If the content of my perceptual experience of a red piece of paper is nonconceptual, then for me to think about how thing appear to me cannot be for me to think literally about the content of my perceptual experience, since judgements only have conceptual contents. The nonconceptualist needs to show how it is that judgements of appearance cannot have the same contents as perceptual states, yet still constitute thinking about the reasons perception gives.

Heck suggests a way in which the nonconceptualist can meet this challenge, which is taken from the work of Evans. Heck writes:

...we need to understand how, although judgements about how things appear do not simply *record* the contents of our perceptual states, they can nonetheless *reflect* the contents of those states, so that our judgements about how things appear might still concern how our perceptions present the world as being.[79]

He appeals to an account of judgements of appearance which, he claims, has these properties:

...[A] subject can gain knowledge of his internal informational [e.g., perceptual] state in a very simply way: by re-using precisely those skills of conceptualisation that he uses to make judgements about the world. Here is how he can do it. He goes through exactly the same procedure as he would go through if he were trying to make a judgement about how it is at this place now, but excluding any knowledge he has *of an extraneous kind*. (That is, he seeks to determine what he would judge if he did not have such extraneous information.) The result will necessarily be closely correlated with the content of the informational state which he is in at that time. ...This is a way of producing in himself... a cognitive state [e.g., a judgement of appearance] whose content is *systematically* dependent upon the content of the informational state...[80]

So, for me to think about how things appear to me is to judge how I would judge if I were to judge purely on the basis of my current experience. In other words, when I say, "It appears to me as if there is a cup before me", I am making a judgement about what I would judge if were to take my experience at face value. In this way, Evans thinks that content of my judgement of appearance reflects the content of my perceptual state, even though the content of that state is not itself the content of my judgement. Since the judgement about how things appear to me concerns what my experience gives me reason to believe, I am reflecting on what my experience gives me *prima facie* reason to believe.

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[79] Heck, R, (2000), "Non-Conceptual Content and the 'Space of Reasons", *unpublished*. P.29.
[80] Evans, G, (1982), *The Varieties of Reference*, Oxford: OUP, p.227-8.

It is important to understand that this option does not entail that ordinary cases of judging that things are so on the basis of experience are two step processes: first, you form a belief that it appears to you as if *a* is *F*; second, on the basis of that belief, go onto believe that *a* is *F*. This would interpose a judgement of appearance as your immediate reason. This would be to return to problematic aspects of some foundation theories of justification. Heck points out that Evans' position is inconsistent with this two-step view. Suppose that I make a judgement of appearance. I judge what I would judge if I were to take my experience at face value. This is different from my taking my experience at face value and judging that things are so. Evans' position implies that I can make such a perceptual judgement directly on the basis of my experience, since the notion of judging what you would judge if you took your experience at face value presupposes the notion of judging on the basis of taking your experience at face value. The very possibility of making judgements of appearance depends on the possibility of making perceptual judgements. Heck writes:

> It should be clear, on minimal reflection, that Evans' position *demands* that it should be possible for me to make such a perceptual judgement directly, and immediately, from my perceptual state: otherwise, the question of what I *would* judge if I *were* to judge solely on the basis of my current experience would be without content; it would be impossible to make any such judgement.[81]

This is to deny that judgements about how things appear give us reasons for our perceptual beliefs, at least ordinarily, and affirm that appearances do. In the case of taking an experience at face value, it is the fact that things appear to me a certain way that is my reason for judging that

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[81] Heck, ibid. p.33.

things are so. To judge that it appears to me as if $p$ is way of recognising that I have perceptual justification for judging that $p$.

Does this strategy answer McDowell's challenge? McDowell's challenge is that for its appearing to me as if a is F to be a reason for my judging that a is F, I must be able to think about how things appear to me or how things are presented to me, that is, I must be able to think about the content of my perception. The nonconceptualist cannot say that I can entertain in thought the content of my perception, since it is nonconceptual. The proposal is that I judge what I would judge if I were to take my experience at face value, and say, "It appears to me as if such and such", and then I can rationally decide, given my other beliefs, whether or not to believe that things are so. In effect, in doing this, what I do is repeat the process of conceptualisation that would occur if I took my experience at face value, except that instead of the output of this process being the content of a perceptual belief, it is part of the content of a judgement of appearance. This allows me to think about the output of a process of conceptualisation - the output of the process of taking my experience at face value - which is a conceptual content. Argument would be needed to show why we should be sceptical about the possibility of a first object perceptual judgement being justified by a nonconceptual experience.

We have seen, via Peacocke's theory, how the content of a perception being correct ensures that a judgement made on the basis of it, by taking it at face value, has a correct content. This is explained in terms of the possession conditions of the concepts of the judgement. This is one

aspect to showing how nonconceptual perceptions can be reasons for believing the world to be some way. This was not sufficient, in itself, to respond to the subjective reflection constraint. But Heck's supplementation is designed to do this, and, if correct, in conjunction with Peacocke's theory, we have an account of how a nonconceptual perception can be a good reason for believing the world to be one way rather than another.

### 3.4.1 *A Futher Concern for Pragmatic Content*

There is an extra concern that needs to be addressed that is specific to my arguments in chapter two for nonconceptualism. I argued that there are ways objects can appear which is dependent on how those objects are being used to the extent that how they apppear in such contexts resists conceptual representation. It follows that insofar as we only consider pragmatic content of experience, it cannot, strictly speaking, be represented at the conceptual level, and we cannot use the Heck-Evans technique in order to reflect how things appear at the conceptual level. This seems to open my position up to McDowell's epistemological argument.

My response to this problem is to claim that it need not be reflected in active thinking to an extent that captures all of its detailed discriminations. It is enough that we can use courser-grained concepts, including demonstrative concepts. In offering a reason for why I moved in a certain way in acting towards an object, I do not need to say how things appeared to me to an extent that every perspectival aspect presented

relevant to the selection of my movements is conceptually discriminated. It should be enough that I can say how things appear to me to an extent that discriminates independently determinable properties of the object as they are presented.