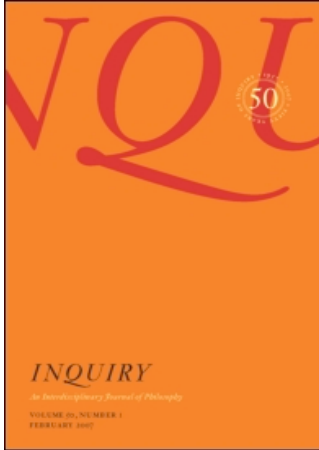


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Motor Intentionality and its Primordiality

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ABSTRACT *Is intentionality possible without representation? This paper considers the conditions under which intentionality without representation could occur and what sort of perceptual content such intentionality would have. In addition, it considers the constraints on non-representational intentional content in organisms that have representation. The paper is divided into three parts. The first section compares and contrasts two opposed positions on non-representational intentionality, those of Herbert Dreyfus and John Searle. The second section reviews a neurobiological model that accommodates the possibility of non-representational perceptual content. The final section provides a puzzle for theories of non-representational perceptual content, specifically in connection with the perception of representations. The puzzle of representation and perception illustrates a further need for all theories of perception, both philosophical and scientific: to provide a more finely developed definition of the notion of representation.*

In *The Varieties of Reference*, Gareth Evans introduced the notion of a type of perceptual content that neither requires nor consists in concepts, something called “nonconceptual content”.¹ Since then, there has been a growing interest in philosophy as to whether some form of nonconceptual perceptual content is indeed possible. If some workable notion of nonconceptual content is to be accommodated, a range of fundamental questions must be addressed. What is the character of nonconceptual perceptual content? How can nonconceptual perceptual content function in an organism that does have concepts? If two types of perceptual content really do exist, how should we understand their interaction? The aim of this paper is not to tackle these questions head-on, but rather to probe the notion of

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representation which lies in the background of these recent debates. The notion of representation suffers from vagueness and ambiguity, but it is widely accepted that representation underlies all concepts and that intelligent behavior is partly a function of our capacity to represent. For example, as you are reading this right now, your behavior is a function of your capacity to represent; among other things you recognize that the marks on the page stand for something other than mere marks on the page. But while you were reading, you might also have scratched an itchy spot on your arm, rubbed the back of your neck, or glanced at your watch. These behaviors were probably performed quite automatically and perhaps without any conscious awareness on your part. Now the question is: did you need representation to perform these intentional movements? Here the answer is not as clear as it is in the case of reading. And of course much of everyday behavior is rather less sophisticated than reading; it consists in intentionally reacting to sounds, itches, obstacles in the path, getting from one place to another, and making sense of the physical world moment-by-moment.

The purpose of this paper is to examine the kind of intentionality at work in this daily, non-reflective intentional behavior, and to consider how it could operate in tandem with intentionality that is representational. In recent years diametrically opposed positions on these issues have been taken by Herbert Dreyfus and John Searle. Dreyfus is an advocate of non-representational intelligent behavior that is a function of non-representational perceptual content – a kind of intentional content known as *motor intentionality*.² In contrast to Dreyfus' non-representational motor-intentionality, John Searle has developed a notion of intentionality which is always representational. The first part of this paper will examine these two positions on intentionality with a focus specifically on Dreyfus' claim that non-representational intentional content is essentially prior to representational content in beings that can represent (the primordality thesis). The second part of the paper will review an influential neurobiological model that accommodates and explains non-representational perception and action, hence strengthening Dreyfus' position. The third part of the paper provides a puzzle for Dreyfus' position on the primordality of non-representational perceptual content, strengthening Searle's position. I conclude that a kind of nonconscious intentionality is primordial in non-representing perceptual beings, but argue against the essential primacy of such a perception in beings capable of representational consciousness.

I. Intentionality: Searle and Dreyfus

For several years now there has been an ongoing debate between Hubert Dreyfus and John R. Searle as to the nature of intentional action in particular and as to the nature of intentionality in general. Searle holds that

all intentionality requires representation. Indeed Searle's notion of intentionality is defined in part by appeal to the notion of representation: a mental state that lacks representational content is simply not an intentional state. With respect to intentional action, Searle distinguishes between two types of bodily movements, volitional and nonvolitional. Broadly speaking, volitional bodily movements are caused by the intentional states of the person whose body is moving. Nonvolitional movements are not so caused – as when I slip on the ice or drop the coffee pot or twitch or wince in pain. For Searle, the intentions which cause volitional movements are *representations* which consist in and are defined by conditions of satisfaction that are self-referential.³ These representational contents are self-referential in virtue of their dual function of both presenting conditions of satisfaction and specifying that the intentional state itself play a causal role in bringing about the state of affairs that satisfies those conditions. It is these self-referential contents that cause the agent's voluntary bodily movements. This description of what causes an agent to intentionally move his body deserves some unpacking. What exactly are these representations? How do their contents actually cause the agent to behave volitionally?

For Searle, a representation is not to be understood as a special sort of entity in the mind. Rather, representations are mental capacities in which the agent of a movement can present himself with what is required for a given movement to attain its goal. This presentation of goal-requirements is the very condition of satisfaction that both motivates and causes the body to move.⁴ For Searle, conditions of satisfaction, or conditions of success for goal achievement are always propositional in that they represent an entire state of affairs. They are structurally of the form: *that such and such is the case*. For example, if I intend to walk to the door or to hit the ball, the propositional structure of my intention cannot be identified simply by appeal to the door or the ball; my intention is rather *that I hit the ball*, or *that I walk to the door*. Any condition that is acted upon or that motivates a bodily movement is thus propositional in its logical structure, and hence representational.

Conditions of satisfaction are something an agent can have access to in more than one mode; they can be either conscious or unconscious. But whatever the mode of access is, it is a requirement of Searle's account that the conditions of satisfaction are in principle accessible to consciousness. That is, they must be the sort of thing the agent could consciously consider under ideal conditions.⁵ Conditions of satisfaction function to specify a goal that the physical movement is intended to achieve. These requirements for goal achievement – i.e. conditions of satisfaction – are the contents of Searle's representations. Thus, actions are bodily movements which are goal directed by the intentions of the agent. Intentions that cause such bodily movement will henceforth be called *action-intentions*.

As stipulated above, the contents of action-intentions always represent a goal as conditions of satisfaction, and these contents contain the minimal amount of representation it takes to achieve that goal. In this way, Searle breaks down the structure of intentional movement into what he calls basic actions. Basic actions are those intentional movements that achieve their goal without requiring representations of any other subsidiary movement. From this it should be clear that the fineness-of-grain of basic actions will vary with levels of skill. A beginner may require very fine-grained representations of movement in order to carry out what, for a more skilled practitioner, would be a basic act. Let us take a simple example. An agent wishes to pour himself a cup of coffee. He picks up the pot and pours the coffee. What is the representational content of his intentional action? Under normal circumstances (let us say: a veteran coffee-pourer moving freely with both limbs and with use of both hands) the action of pouring a cup of coffee is a basic action: the goal is to have the coffee poured, the movement consists in pouring. Thus the basic action for this agent's intentional action is merely pouring coffee into a coffee cup. Now let us consider altered circumstances where the agent in question does not have regular use of his limbs. Let us suppose that his arm is broken. What is the content of such an agent's representation of his intentional action? The intention to pour a cup of coffee becomes an overarching intention which must encompass subsidiary basic actions in order to be achieved. Therefore in order for an agent to pick up a cup of coffee he must first pick up the pot and manage to hold the pot while he pours the coffee. His ultimate goal of pouring a cup of coffee consists in two basic actions, picking up the pot and pouring the coffee.

Certainly Searle accounts for the fact that the intentional actions of life are more complex than merely performing multitudes of basic actions. On his account most of our daily actions are highly skilled actions which do not require representation at the level of each goal-oriented movement that we make. Searle says that what we represent ourselves as doing rises to the level of our background skills – our set of non-representational skills that ground all intentionality. That is, the more expert we become in our physical movements, the less we have to represent the minutiae of movements. We simply act without needing to pay attention to how we perform our actions. But, and this is an important point, we do in fact represent our larger more complicated movements regardless of whether we perform them unconsciously as part of our background skills or not. Searle's point in insisting on this proviso in his theory of action is that at any point during the bodily movement, the agent must know who is causing his bodily movement and he must be able to provide some level of description of what it is he is doing. Searle insists on this thesis of ultimate representation (representation of all movement that is intentional), because he wants to incorporate his theory of action within a theory of rationality. He wants to explain what it is to act on

a reason, or for that matter, to refrain from acting on a reason. Incorporating reasons into rational behavior requires representations as a causal component of our bodily movements.

I turn now to consider Dreyfus' approach. Dreyfus distinguishes between two types of intentional action – intentional action which is representational and intentional action which is non-representational. Non-representational intentional action he calls absorbed coping, and this special form of intentionality he refers to as motor intentionality. Motor intentionality as absorbed coping is meant to capture the daily flow of our intentional actions in which we have acquired a kind of expertise. As a trivial but common example of our daily expertise we can measure out coffee grounds for the coffee pot without needing to consult instructions. Not only do we not need to consult instructions as to the measurements, we simply distribute the coffee without going through the steps of measuring at all. We know what to do from so much experience. If someone were to stop the actor in the middle of his coffee-making action and ask him exactly how much coffee he had measured out to that point, it might be the case that the actor would not know the answer in terms of exact measurements, but rather could explain his knowledge in terms of how it seems.⁶ To the question, "How much have you measured?" he could eye the grounds and say, "Not quite enough", or he could lift the grounds basket and say "Feels just about right". Examples of such intentional behavior include much of our social behavior. Absorbed coping (the kind of action that most clearly manifests motor intentionality) operates in virtue of an actor's ability to sense what is appropriate movement at the moment rather than on his ability explicitly to represent conditions of success for his movement. On Dreyfus' account, the actor might not be able to specify what counts as success for a given movement – at least not independently of actually carrying the movement out. For Dreyfus, motor-intentional movements have what he calls *conditions of improvement* rather than Searle's conditions of satisfaction. Dreyfus uses the example of tennis to demonstrate his notion of conditions of improvement: The tennis player has of course an overarching intention to win a game, but in the moment of playing the game, the tennis player's movements are concentrated on the demands of the moment – moving one's body so that it engages the ball in the right sort of way. Though it is really a subtle difference, Searle's conditions of satisfaction for this very situation would reduce the goal achievement to hitting the ball to the best advantage of the player. The subtle difference is that Dreyfus' movement is a matter of momentary negotiation of body with ball (on his account, the tennis racket should indeed be considered as an extension of the body) while Searle's player, though also moving without consciously representing, is motivated to hit the ball as an agent trying to win the game. Dreyfus' movement is a matter of a physical body successfully navigating in the world; Searle's movement is a matter of a rational agent playing a game. Dreyfus' motor-intentional

movements are intentional in that they are normative. Their normativity resides in the body's sensing how the movement fits the particular circumstances both surrounding and eliciting it.

It is worth emphasizing a crucial point where Dreyfus diverges from Searle's model. Dreyfus insists that our responsiveness to the appropriateness conditions of a given situation is not mental but rather physical. Describing this kind of knowing as sensing on Dreyfus' account is misleading because it is not a mental experience that determines appropriateness. Rather, it is the body itself which has the ability to determine appropriateness, and it is in this way that sensing is to be understood. Dreyfus' account of motor-intentional knowing can be described as a kind of "knowing-how" but it is important to note that this knowing-how is entirely based in physical skill and may or may not lend itself to reflective conscious representation. In fact, it is not necessary that it be accessible to conscious awareness. Hence, the intentionality of motor intentionality radically departs not only from Searle's notion of intentionality, but also from traditional notions of intentionality in that it is a property of the body rather than of the mind. And it follows that the content of motor intentionality is not a function of the mind's capacity to represent, but rather the body's own ability to know how to negotiate the external world. If Searlean intentional content is described as a mind-to-world direction of fit, physical motor content is can be described as body-to-world direction of fit.⁷ Finally, it should be added that conditions of normativity for a motor-intentional action are entirely dependent on the physical context of a given action. Physical contexts are constantly changing, never repeating themselves in exactly the same way, therefore conditions of success are constantly in flux, never repeating themselves in exactly the same way.

With respect to how people intentionally interact with their environment as a whole, Dreyfus allows some intentional states to be representational in Searle's sense. Such states, though, are typically breakdown states – when something goes awry and stops the flow of the interaction. For example, to take Dreyfus' tennis example, if a person is playing tennis and he is a skilled tennis player, he doesn't need to represent his movements during a game. But let us say that something goes awry in the game – a second ball bounces on to the court, or a cat strays onto the court. Then the flow of the game is interrupted, and he has to think about which ball he needs to hit, or about avoiding the cat on the court. This is certainly a case of representing and a breakdown case for Dreyfus. Another example might be helpful. Consider the skilled coffee-maker again. The skilled coffee-maker doesn't require representation to know how many grounds he needs for his pot. He just knows how much and he knows this by how the coffee pot or the grounds basket feels – weighted, empty, etc. Or, he knows it by how the coffee pot or the grounds basket looks. But let us say that in the middle of filling up his pot with grounds, the phone rings and he is interrupted in his coffee-making

task. When he resumes his coffee measuring, he has to represent to himself how much he has already measured out, and how much more coffee he needs to achieve that amount that feels or looks just right. Again, this is a case requiring representation – a breakdown case for which Dreyfus would allow representation. Ultimately, though, Dreyfus commits his theory of intentionality to what I think is a radical position. Non-representational motor intentionality is, as Dreyfus puts it, *primordial*; it is essentially prior to any intentionality that is representational. Absorbed coping forms the background condition “of the possibility of all forms of comportment”, and therefore must precede representation.⁸

Dreyfus’ account of non-representational motor intentionality, as a theory of intentional action, also carries implications for the theory of perception; in particular it presumes that the perceptual experience involved in motor-intentionality must itself be non-representational. Motor intentional actions are intentional in virtue of how the body can knowingly negotiate situations. This intelligent physical negotiation includes perceiving situations as non-atomistic, interdependent wholes: the color of the coffee is part and parcel of the liquid that is part and parcel of the pot which itself is situated in and as part of a larger background. None of the pieces of the perceptual experience is ultimately isolable – each is rather a perceptual moment of how things are in the world for the perceiver. Hence the essential component of Dreyfus’ theory of motor intentionality – non-representational content – must also be the essential component of perceptual content in his account. If motor-intentional actions lack representation, the contents of perceptual experiences that guide motor intentionality must also lack representation. And these perceptual experiences must also be primordial. As we shall see, this cluster of claims about non-representational intentionality has significant implications for the theory of perception more broadly, and specifically for a theory of perceptual content.

With respect to the debate between Searle and Dreyfus on the nature of intentional action, there are further repercussions for the discussion of non-representational content. If Dreyfus is right that action doesn’t require representation, and if he is right that intentional action is primordially non-representational, then it looks like perceptual contents are not only non-representational for the most part, they are primordially non-representational. Dreyfus’ account requires that the contents of perception are initially non-representational. They can only acquire representational content at a later point. I think it is fair to stipulate (though a full discussion cannot be provided here) that contents lacking representation can be considered “nonconceptual” in the most minimal sense. And on Dreyfus’ account we can say that our normal, everyday perceptions consist primordially in nonconceptual content. This is a strong claim but I think it is a consequence of Dreyfus’ position. Because Dreyfus’ position is clear with respect to which sorts of states are non-representational, it can explain

and predict which of our perceptual states will be representational and which will not. Dreyfus' thesis could provide a foundation for a theory of nonconceptual perceptual content.

But in this paper I do not want to argue for the possibility of nonconceptual content and what it could possibly be. Such a discussion requires giving an ontological explanation of what the filler of nonconceptual perceptual content is and there is plenty of literature to date already about this. Rather, I would like to focus on perceptual access to information in the absence of representation. Dreyfus' theory of intentionality is based on the non-representational processing of information. There is no explicit claim about a theory of nonconceptual content in Dreyfus' account, but I do think there are implications for such a theory in his thesis that motor intentionality is primordial.⁹

II. The primordality of non-representational intentionality

Dreyfus' account of motor-intentionality without representation accords nicely with scientific data about visual processing. In the scientific literature, specifically that of Milner and Goodale but not limited to their work, is a basic picture of how the mind processes visual information. The basic structure of their account is as follows: there is a primitive brain function which processes visual stimuli before any further processes that lead to representational or intentional thought. This brain function is the primary function of the brain to receive input and produce output in the form of action. It is the primary function of the brain because it is a kind of survival mechanism.¹⁰ This property of the interdependency of perception and action (henceforth "perception-as-action") is common to all living things with brains. It is what we humans have in common with sand crabs, for example.¹¹

Conscious reflection in the form of intentional mental states is a later evolutionary development that allows some species flexibility with respect to their behavior. This is where we part company with the sand crabs. Humans can make future plans about their actions, a capacity that sand crabs seem to lack.¹² Nonetheless we share with sand crabs the primary brain function of perception-as-action. Sand crabs spot prey and grab it. We move through our day avoiding obstacles, negotiating the world with little memory or thought about what we do. In addition, conscious focus plays little if no role at all in this picture. It is certainly not a requirement in support of perception-in-action, and in fact most of our daily existence is governed by this primary and primitive brain function. Therefore, at a very basic level we share much of our daily lives with all beings with brains regardless of their inability and our ability to have higher order thought such as thinking about the merits of Russian literature or planning for the summer holidays. The basic picture of the perceiving brain is that it is a machine that receives input

and produces output irrespective of our conscious appreciation of this process.

Once in the head, visual information as the input of the brain-as-machine is processed along two divergent paths, the dorsal and the ventral.¹³ That there exist two divergent streams of information processing is not controversial; what they *do* is controversial, and it is the Milner and Goodale proposal that fuels the idea that there are perceptual contents which are non-representational.¹⁴ Their interpretation of the dorsal stream is a potentially powerful tool to explain what we share with sand crabs, why in fact we can operate automatically and with flexibility without the representations of intentionality: one portion of our visual processing is devoted to action. This portion of visual perception can operate quite independently of the visual experience of representation. More importantly, it does not require conscious representation.

Thus there are a bundle of presuppositions that a Milner-Goodale account of perceptual processing incorporates. One is that the brain is a functional machine which processes information as input and produces output. A second is that perception is fundamentally inseparable from action: perception-as-action is the primary function of the perceiving brain. With respect to representation, Milner-Goodale have nothing to say about its intrinsic nature, but if representation requires awareness, i.e., being conscious in Milner-Goodale's sense of the term, then Milner-Goodale's thesis neither requires consciousness nor representation for an organism to interact with the world.

For Dreyfus' notion of motor-intentionality, a Milner-Goodale explanation of perception-in-action accords nicely with the idea that we can have intentional action without representation. On Dreyfus' account most of our daily lives is a matter of perception-in-action, and therefore most of our intentional contents (perceptions included) do not need, and indeed function best without, representation. At this point, though, we need to make an important distinction between Dreyfus' motor-intentional account and Milner-Goodale's account of perception-in-action: Milner's and Goodale's perceptual state lacks consciousness entirely, whereas Dreyfus' motor-intentional state is indeed conscious. In fact, Dreyfus' motor-intentional state can even be one that results from selective attention so that it includes focus. Thus, Dreyfus' perceptual state is really quite different in kind from Milner-Goodale's perceptual state but shares the features of movement as a primary function of visual perception and content that is non-representational.

We should appreciate, however, that a Milner-Goodale explanation of perception-in-action can also be made to fit with Searle's notion of action-intentions that are not conscious. For Milner and Goodale, it appears that a conscious state is essentially a state with representational content. In addition, their term "visual awareness" implies a conscious state with representational content.¹⁵ Therefore, any mental state that motivates

action and is conscious is representational both on Searle's and Milner-Goodale's account, but not on Dreyfus' account. Since Milner and Goodale have nothing to say about unconscious mental content, actions which are performed without attention or perhaps even awareness, including the extreme examples of blindsight actions and actions during epileptic seizures, do not conflict in kind with Searle's unconsciously motivated actions. On the other hand, because Milner and Goodale's project is to present perception-in-action as a primary function of the brain, utilizing a part of the brain that does not represent (on their account) in order to perceive, and they do this specifically to contrast in-kind perceptions that require representation, Dreyfus' account is strikingly more like Milner and Goodale's in spirit if not in intention. But there remain problems for all three accounts, as will be illustrated below.

Given the Milner-Goodale thesis and given Dreyfus' notion of motor intentionality, we can say that a thesis of non-representational intentionality has the following presuppositions: 1. The brain is a functional machine that processes information as input and produces output primarily in the form of behavior. 2. The primary functional operation of the visually perceiving brain is perception-as-action, conceiving of the visual percept in terms of physical movement. This operation does not require consciousness. 3. The subsidiary, auxiliary functional operative of the visually perceiving brain is conscious, representational perception. 4. The primary function of the perceiving brain is not that of consciously representing percepts, but that of enabling physical negotiation and/or interaction with percepts.

There is curiously little discussion in both Milner and Goodale and Dreyfus' writing of how the mind actually does come to have representational content. The presuppositions that form the foundation of basic non-representational content show a tight connection between biology and action, or perception and "visuo-motor activity", but higher order, representational thought, (presupposition 3) is more or less an ad hoc function of the brain. Furthermore, terms such as "representing" and "representation" are used in this literature, but they remain undefined and they are applied to both non-representational and representational contents. It is not clear what function representing performs, nor what sort of thing these representations, that both types of contents do and do not have, are. So, though basic non-representational content presents a strong basis for a theory of perception, there remain some philosophical and biological problems that riddle current theses: 1) How does the brain go from perception-as-action to perception-as-thought? And 2) What is representing and what are representations?

III. A puzzle for the primordially of motor intentionality

Perhaps the most fundamental insight in the accounts of non-representational content lies in the idea that we are like sand crabs in

certain ways – more ways, perhaps, that we usually recognize. Most of our daily lives are spent in activities such as negotiating obstacles or navigating terrain more-or-less unthinkingly. We make and pour and drink our coffee; we keep our proper distance in the elevator and in grocery lines. Explicitly representational consciousness may play no greater role in all this than it does in the life of the crab. Nonetheless our waking life is filled with something sand crabs probably do not do and which are not optional activities for us. We perceive sounds as syntactical strings with semantics; we perceive two-dimensional differentiated flat surfaces as pictures or written language. Simply put, we have perceptions of representations as representations (*representation-perceptions*) and we encounter representation-perceptions constantly throughout our conscious lives whether we want to or not. Perceptions in which representations (whether in the forms of representational pictures or in spoken or written language) are the content of perceptions are not only a birthright of humans, they are a fundamental part of what distinguishes us from other species. Given this fact and given a motor intentionality account of perception that includes the primordially thesis, a puzzle arises. Let's first distinguish two varieties of representation-perception: the perception of figural pictures (picture-perceptions) and the perception of written language (inscription-perceptions). The challenge for a theorist of motor intentionality – particularly for Dreyfus' account of motor intentionality as primordial – is to account for such perception nonconceptually, without invoking any representational content whatsoever, and moreover to account for this as a matter of our primary, primordial mode of perceptual access. If Dreyfus' motor intentional account of perception did not include the proviso of primordially, the puzzle of perceptual access to these types of pictures might not arise. But the distinctive strength of Dreyfus' account of intentionality lies in the claim that non-representational perceptual content is essentially prior to representational content. Any such an account needs to explain how it is we perceive the two kinds of representation-perception, and do so by means of non-representational perceptual content.¹⁶

But the challenge for such accounts of non-representational content actually runs deeper. The task is not only to show how non-representational representation-perception is possible, but also to account for what is shared by both varieties of representation-perception, viz., that they are both perceptions of representations. It is important to recognize that the core issue here is not epistemological – it is not a question about how or whether we *know* that we are seeing a representation rather than seeing something non-representational. Rather, the question pertains to the ontology of content: what distinguishes various contents of our perceptions? What are the essential features that distinguish a representational perceptual content from a non-representational perceptual content? To use Searle's notion of conditions of satisfaction, what are the conditions of satisfaction for the

content of a representation-perception and how do they differ from those for other perceptions?¹⁷

Initially there appears to be an asymmetry in the explanation of the two varieties of representation-perception. When perceiving figural pictures, conceptual knowledge typically plays at most a minimal role. When perceiving linguistic inscriptions, conceptual knowledge at some level would seem to be required. For example, consider the perception of a simple pen-and-ink drawing of a cat on a mat. Contrast that with the perception of an inscription, perhaps in chalk: "The cat is on the mat." Both of these are visual perceptions of representations and both represent the same state of affairs. How much conceptual knowledge does one need in order to see the pen-and-ink drawing as representing a cat and a mat? According to Dreyfus' thesis of primordial motor intentionality, not much if any. Of course, then such a thesis needs to provide some sort of explanation as to how it is that we can see the drawing as a *picture* of a cat rather than a real cat, but a story might be constructed that we see the figures as a picture because, for example, the figures are not three dimensional, or they are on a flat two-dimensional surface, they do not have color, etc. But the final analysis would be that we simply *know how* to see a picture because we have been trained to view pictures; we have picture-perception mastery.¹⁸ So an explanation of picture-perception in terms of primordial motor intentionality is perhaps not difficult to envision. The story becomes more complicated in the case of viewing the inscription, but the same sort of explanation could be applied. In order to perceive the constituent shapes in an inscription as a sentence and not just as meaningless marks on the page, one must at a minimum recognize that "the cat" is a separate linguistic unit from "the mat" and that interchanging these two units would change the meaning of the sentence. In other words, in order to perceive this as a representation it would seem that you must know the basic rules governing its constitution; for starters you need to know some of the basic rules governing English syntax. Once again, however, the theorist of motor intentionality could appeal to the type of explanation that we used for the case of the pen-and-ink drawing: we come to know *that* the marks on the page are a sentence by learning *how* to read marks as letters and then letters as words and words as sentences. This explanation has appeal because we do not consciously employ rules to perceive an inscription as a sentence. When I view an inscription in English, I immediately see it as an English sentence rather than marks on the page; moreover, my awareness is typically keyed to its meaning rather than to facts about its material form. Thus, the motor intentionality theorist could say that the kind of knowledge that allows us to perceive the inscription as a representation is ultimately knowing-how rather than knowing-that, non-representational content instead of representational content, a mastered skill. It is in the breakdown cases that we employ our representational knowledge, such as for example, when we

cannot discern the writing because of bad print – is that really the word “cat” or “bat?” etc. Thus, on a non-representationalist reading, perceiving inscriptions is an acquired skill not much different from other skills such as riding a bike or knowing how to keep one’s distance in the elevator. One may or may not learn explicit rules in training, but they play no role once the skill is mastered.

But with these explanations of representation-perception, we face a broader problem. On the accounts proposed, both the drawing and the inscription are alike in that they are perceptible without the benefit of conceptual content or representational contents because their perceptions are a kind of mastered skill derived from training. And though these representations represent in different ways, the perceptions they cause are ultimately representations of the same state of affairs: a cat is on a mat. At this level it doesn’t matter that one is a figure and the other a composite of words. This might be a problem for some analyses of perception, but I do not think it is the main problem at this point for the proponent of motor intentionality. Rather, the crucial question derives from the very point that the figure and the inscriptions are representations of the same state of affairs and that they cause perceptions of representations rather than perceptions of the thing that they represent – a cat on a mat. The question is: what do the drawing and the inscription share that makes them cause perceptions of representations rather than perceptions of something non-representational? And correlatively, what is it about the perceptions themselves that makes them perceptions of representations rather than perceptions of something that is non-representational? What feature of the perceptions of the drawing and the inscription distinguishes them as perceptions of representations? That we just know how to see these representations is an explanation that is equally applicable to non-representations. Motor intentionality cannot answer these questions simply by invoking the notion of mastered skill.

There is a second problem for Dreyfus’ motor intentionality and representation perception. Although the problem has a general application, we can illustrate it by considering again the case of perceiving an inscription. As we have seen, the motor intentionality account of such perception appeals essentially to the skill-mastery that is deployed in such a perception. But let us now consider such a perceptual encounter in abstraction from such skill-mastery. How should we characterize the perceptual content for a perceiver who has neither the skill nor the mastery that we have been appealing to? Here it is worth distinguishing two sorts of cases. In the first scenario, our vision is left wholly intact but we lack a certain range of conceptual knowledge about the language of the inscription. In the second case our vision is intact but we suffer from a neurophysiological disorder that disrupts our perception of the inscription as a single whole. The first case is indeed what we have when we perceive written strings of words in an unfamiliar language. We see the strings as marks but we do not see them as

bearers of specifically semantic content. In effect we cannot see the marks as representational. For example, I do not know Sanskrit. When I first see a string of symbols in Sanskrit it may strike me as aesthetically pleasing marks on a page but not as a linguistic inscription. I have my own language, but I do not have that language therefore I cannot perceive written Sanskrit as representing anything. What is missing? It is the conceptual knowledge which enables the perception of representation. Because I lack conceptual knowledge I do not have a representation-perception, but I do have a visual experience which is semantically empty. What is represented is not seen.

The second case is that we do have the representational (conceptual) knowledge to enable the perception in question. Our visual capacities are intact but we suffer from a neurophysiological problem that blocks the perception. This is in fact the case of a kind of visual agnosia called “pure alexia.” Pure alexics have lesions in the left hemisphere of the brain which block the ability to read words and entire sentences. Pure alexics are able to see only individual letters in a word but the word itself is either missing or is perceived as an object with no meaning.¹⁹ What sort of visual experience is left in this second scenario? There is no perception of the inscription as a single totality. Instead there is a curious kind of blindness – the inscription and what it represents is unperceivable. So in this case there is a visual experience – vision is intact – alongside a kind of blindness. The visual experience is semantically empty.

These two real possibilities illustrate the crucial role that representational (conceptual) knowledge plays in perceiving representations. In both cases (the particular case of perceiving an inscription in a foreign language and the case of visual agnosia) representation is blocked because there is no access to conceptual knowledge. The first problem for motor intentionality approaches, then, is to explain what feature perceptions of any kind of representation have – both of figural and linguistic representations – that distinguish them from perceptions that are not of representations. This is a problem for any theory of perception but it is a problem for Dreyfus’ motor intentionality in particular if it is to maintain primacy over conceptual, representational accounts of perception. The second problem for motor intentionality is to explain how the physical capacity of vision can remain intact and yet perception of representation is lost when conceptualization is blocked. Simply appealing to skill-mastery in reading does not adequately answer either of these questions.

Conclusion

It has not been my aim here to provide a positive account of the role of representation-perception in our visual system, nor to propose a hypothesis about where it might be located in either evolutionary or psychological sequences. Neither have I sought here to challenge some of the most

important neurophysiological claims about non-representational content (e.g., about its role in the visual processing of the dorsal stream), which stand or fall quite independently of the considerations advanced here. My concern has been rather to identify a vulnerability in theories which pin their account of non-representational consciousness to an analysis of motor intentionality or perception-in-action. Even here, the problem emerges pointedly only for theories like that espoused by Dreyfus, distinguished not only by the contention that there is such non-representational motor-intentionality, but by the additional claim that it is in Dreyfus' distinctive sense primordial – that it is an essentially basic form of intentionality that must precede representational consciousness. My claim is not that Dreyfus' account of motor-intentionality has been shown to be false here, except on one important detail: representational content is not a type of ex-post facto perceptual content that occurs only after an initial, wholly non-representational perceptual content. At least in the cases that have been provided, representational awareness cannot be treated as a wholly extrinsic, optional visual activity. In the limiting case, the absence of representational awareness results in a kind of blindness.

It is worth remembering that each of the three theories of perception we have considered here – those due to Searle, Dreyfus and Milner-Goodale – allow for a kind of perception that does not require active consciousness, selective attention or explicit conscious awareness. Even Searle's account, which makes the intentionality of perception essentially representational, can accommodate perception-as-action as a kind of intentionality that is unconscious; the Milner-Goodale account treats perception-as-action as non-conscious, and thereby non-representational. One need not accept the unrestricted primordality thesis in order to accommodate the possibility of unconscious intentionality. If we are to decide among these theoretical options we will require a more fully elaborated account of the character of representation itself. Neither Dreyfus nor Goodale-Milner provide such an account, while Searle's functional account is such that any internal condition – conditions of satisfaction or conditions of success – that produces or motivates action is representational. Further attention to the proper characterization of representation itself might help answer some of the questions raised in this paper, and too resolve some of the disputes that have been explored here. But this must remain a task for a separate occasion.²⁰

Notes

1. Evans, G. (1982) ch.5.
2. This term is Merleau-Ponty's.
3. Searle's theory also accounts for a type of intentional state whose representational contents are not self referential. Such states are, for example, beliefs and desires.
4. Searle does not use the word "present" to talk about the function of representation. I am using this word in order to avoid circularity in analysis of representation.

5. The condition of accessibility to consciousness that a state of the brain must meet in order to count as mental is what Searle calls "the connection principle". Searle, J.R. (1990).
6. Searle uses the term "agent" whereas Dreyfus prefers not to use the term "agent" but their preferences are motivated by the same reasons. The term "agent" implies rationality, and rationality implies representation. For the discussion of Dreyfus's motor intentionality, I am using the term "actor" but Dreyfus would equally accept the term "subject".
7. For a description of the notion of direction of fit, cf., Searle (1983) p. 97.
8. "Thus, in the last phenomenological analysis, absorbed coping is the background condition of the possibility of all forms of comportment." (p. 11). And with respect to the type of intentionality of action, "...of the two, absorbed coping is more primordial". Dreyfus, H. (1999) p. 11.
9. Dreyfus says that such an implication is made in the introduction he wrote to Samuel Todes' book, *Body and World* (Cambridge: MIT Press. 2001) though there is no explicit claim for a theory of nonconceptual content.
10. The notion of primacy in this case derives from both the function of this part of the brain as a processor of visual stimuli that requires immediate action on the part of the organism, and its evolutionary precedence over the representational, experiential function of the visual brain. cf. Milner, M., Goodale, D. (1995) pp. 65–66.
11. A. Clark discusses nonconceptual content with respect to the cognition of various animals, specifically considering the sand fish. I have never seen a sand fish but I have seen many crabs in sand, so I am using sand crabs as an example. The sand fish, native to North Africa, is a kind of lizard that burrows in the sand. Clark, A. (1994) pp. 63–79.
12. Indeed, humans can stop and think about whether they actually want to perform their next action. It is not clear that sand crabs can.
13. What this means is that there are two locations in the brain, the parietal (dorsal) and the temporal lobes (ventral) where visual stimuli are directed.
14. There are two opinions as to what the dorsal and the ventral streams of processing do. Milner and Goodale propose that the ventral is concerned with perceptual representation while the dorsal is concerned with motor-activity. The other more traditional interpretation of these functions is that the ventral identifies an object whereas the dorsal locates it. e.g., Ungerleider, L.G., and Mishkin, M. (1982) pp. 549–58.
15. E.g., "Yet blindsight is only paradoxical if one's concept of "sight" is equated with visual awareness." (p. 69). "Blindsight, of course, is defined by the absence of visual consciousness." (p. 79). Milner, M. and Goodale, M. (1995).
16. It is important to note here that neither Dreyfus nor Merleau-Ponty dismisses the possibility of representational intentional content for perception. The question at hand is the primordality and logical priority of non-representational intentional content. The issue is not trivial and cannot be dismissed easily by stating that motor-intentionality can be preserved as a type of non-representational content merely by allowing some visual experiences to be primarily representational, for example, breakdown cases. The question then remains as to how to judge exactly what qualifies as a breakdown case. Breakdown cases have been characterized as those in which the flow (to use Dreyfus's own words) is interrupted. But then the same problem arises for the notion of flow.
17. Though he examined the question from a different angle, Richard Wollheim studied this question in depth throughout his works. C.f. Wollheim, R. (1980) Hudin, J. (2003) ch.2.
18. Of course, then the converse would have to be true, that perceivers not trained in picture viewing could not see pictures and there is data that this is not the case. As Ittelson says, "the capacity to produce and perceive pictures-and markings ("representation" in our parlance)-seems to be built into the human nervous system.... Infants recognize objects in pictures and can discriminate picture from object". DeLoach, J.S. and Burns, N.M.

- (1994), pp. 83–110. Nye, R. and Thomas G.V. and Robinson, E. (1994) pp. 123–134. Ittelson, W.H. (1996) pp. 171–187.
19. It is not always clear as to which is the case. For example, ventral simultanagnosia is a kind of visual agnosia in which there is damage to the left inferior temporo-occipital region of the brain. Ventral simultanagnosics have trouble viewing multiple pictured objects and this is extended both to figural pictures and words. On the other hand, pure alexics appear to be able to read more than one letter, but not entire words. Farah, M. (1995) pp. 25–8.
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