

CARTESIAN ERROR AND THE OBJECTIVITY OF PERCEPTION*

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Individualism as a theory of mind derives from Descartes. It dominates the post-Cartesian tradition—Locke, Berkeley, Leibniz, Hume—up until Kant. And it has re-emerged in the writings of Husserl and of many English-speaking behaviourists and functionalists. Although a generic similarity of standpoint is discernible in this motif, it is difficult to state clearly and succinctly what these philosophers hold in common. Roughly, they all think that the nature and individuation of an individual's mental kinds are 'in principle' independent of the nature and individuation of all aspects of the individual's environment.

A more precise characterization of individualism that captures the position of many modern functionalists is

Individualism is the view that if one fixes those non-intentional physical and functional states and processes of a person's body whose nature is specific without reference to conditions beyond the person's bodily surfaces, one has thereby fixed the person's intentional mental states and processes in the sense that they could not be different intentional states and processes from the ones that they are.

This characterization is useful. But it is not directly relevant to the non-materialist tradition. Perhaps for some in this tradition (most plausibly, Berkeley and Hume), one could alter the characterization by referring to the person's phenomenological mental phenomena instead of to the person's physical states and processes. So for them individualism would be the thesis that a person's phenomenological, qualitative mental phenomena fix all the person's mental states, including those (like thoughts, desires, intentions) with intentionality or representational characteristics.

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But now the characterization seems strained. It depends on distinguishing two aspects of the mental: phenomenological and intentional. I think it hard to maintain that traditional philosophers were drawing such a distinction cleanly enough to use it as the foundation for a major assumption. In retrospect we can see philosophers in this tradition as tending to assimilate concepts or even thoughts to (sometimes rarefied) percepts, and as regarding percepts as having their referential or intentional features intrinsically, as a result of their non-relational, qualitative, phenomenological natures. But it is doubtful that these philosophers can be seen as having made the distinctions necessary to be attributed a supervenience thesis of the sort just proposed. Moreover, the rationalists purported to lay little weight at all on the phenomenological character of our intentional states.

One could say that

Individualism is the view that a person's mental states and processes have intrinsic natures, in the strong sense that the nature and correct individuation of those states and processes (including individuation of their intentional content) is independent of any conditions that obtain outside that person's mind.

Although this characterization does better for Descartes, it has its own difficulties. These centre on the term 'outside': It is not just that the term is vague as applied to the mind. The primary problem is that the characterization trades on a crucially unclear point in most idealist, especially most pre-Kantian idealist, theories. With Leibniz and Berkeley (and, on some interpretations, Hume), it is a subtle matter to say what is 'outside' an individual's mind. Of course, in solipsistic theories nothing is outside the individual's mind in any sense. One may argue over whether the theories of Leibniz, Berkeley, or Hume are in some sense 'ultimately' solipsistic. But regardless of what one thinks on this matter, the present characterization is crude at just the wrong point.

Still, the idea that the mind is somehow self-contained seems common to individualists. The idea can be refined, at least somewhat. Although it is difficult to generalize smoothly across Descartes, idealists, and various materialist reductionists, we shall characterize individualism, for our purposes, in roughly the way we began:

Individualism is the view that an individual person or animal's mental state and event kinds—including the individual's intentional or representational

kinds—can in principle be individuated in complete independence of the natures of empirical objects, properties, or relations (excepting those in the individual's own body, on materialist and functionalist views)—and similarly do not depend essentially on the natures of the minds or activities of other (non-divine) individuals. The mental natures of all an individual's mental states and events are such that there is no necessary or other deep individutive relation between the individual's being in states, or undergoing events, with those natures, and the nature of the individual's physical and social environments.

Individualism has been motivated in a variety of ways. Explanatory or reductionistic strategies, ontological preconceptions, and various epistemic intuitions have provided undeveloped but nonetheless deep conviction in the truth of the doctrine. The epistemic intuitions, however, were the original ones, deriving as they do from Descartes. They retain considerable power, I think, even among philosophers who instinctively avoid resting weight on Cartesian thought experiments. In the first section of this paper, I shall discuss these intuitions in a sketchy and preliminary way. In the second, I shall propose an argument against individualism that bears fairly directly on those intuitions. The argument centres on perception. The issues at stake here are of some moment; and the present brief discussion should be construed as a sketch, not an appropriately scaled treatment.¹

I. Descartes imagined himself thoroughly mistaken about the nature and even existence of the empirical world. The thought

¹ I have discussed individualism in several other papers: 'Individualism and the Mental', *Midwest Studies*, vol. IV (1979), 73-121; 'Other Bodies', in Andrew Woodfield (ed.), *Thought and Object* (Clarendon Press, Oxford, 1982); 'Two Thought Experiments Reviewed', *Nature Daring Journal of Formal Logic*, xxiii (1982), 284-93; 'Intellectual Norms and Foundations of Mind', to appear in *The Journal of Philosophy*, and 'Individualism and Psychology', to appear in *The Philosophical Review*. There are significant differences among the various arguments against individualism in these papers. Some centre on the role of the linguistic environment, some on the objectivity of theoretical discussion, some on the role of the physical environment. 'Individualism and Psychology' contains the argument that I shall present here in section II. But the argument in this other paper is given in a substantially different context. I think that ultimately the greatest interest of the various arguments lies not in defeating individualism, but in opening routes for exploring the concepts of objectivity and the mental, and more especially those aspects of the mental that are distinctive of persons.

experiments that he proposed are exceptionally vivid and powerful, at least on first encounter. And they have suggested to many—as they suggested to Descartes—that one's mental phenomena are in certain fundamental ways independent of the nature of the empirical and social worlds.

When one considers the thought experiments in any depth, one comes to realize that their details bear heavily on precisely what philosophical theses can be supported by reference to them. This generalization applies with undiminished force to attempts to use Cartesian thought experiments to support individualism. For example, the case for individualism based on the dreaming hypothesis is immediately affected (undermined, I believe) by the fact that an interpretation of dreams presupposes thoughts in a wakeful state. And the fact that it is part of the demon hypothesis that one is being deceived or fooled is of critical importance to any discussion of the relevance of the hypothesis to individualism. But I want to cut through such subtleties as much as possible. The 'Cartesian' cases that I will be imagining make no use of dreams and make no assumptions about demonic deception. I think that laying these aspects of the thought experiments aside strengthens their *prima facie* usefulness for individualist purposes. I will construe Descartes as capitalizing on the causal gap that we tend to assume there is between the world and its effects on us: different causes could have produced 'the same' effects, certainly the same physical effects on our sense organs. I will interpret him as conceiving a person as radically mistaken about the nature of the empirical world. I shall see him as imagining that there is something causing the given person's mental goings on, but as imagining that the entities that lie at the ends of relevant causal chains (and perhaps the causal laws) are very different from what the person thinks.

The Cartesian hypotheses gain considerable power if one places oneself in the position of the person under the delusion. From the 'inside', from a 'first-person' point of view, one develops an impression of the independence of the nature of one's mental life from outside determining factors. One has a vivid sense of how the world seems; but one remains conscious of the contingency of the relation between the way the objective world is and its effects on us. That is, the same sensory effects could seemingly have been systematically produced by a variety of different sets of causes-cum-laws. Then our vividly grasped thoughts would be mistaken. These sorts of con-

siderations have led many to conclude that individualism must be true.

But let us consider more closely. As we have stated the Cartesian hypothesis, it contains two elements: some epistemic remarks and some remarks about causation.

The causal elements by themselves do not support the individualist position. The possibility that very different causal antecedents could issue in the same physical effects on the individual's body, and perhaps even issue in the same phenomenological mental phenomena, is used as a component in my previous arguments against individualism. (See n. 1.) The strategy of the arguments is to conceive of a person's having certain thoughts (for example, a belief that aluminium is a light metal used in making airplanes). Then, holding the history of the person's body—and perhaps non-intentionally specified, qualitative experiences—constant, one conceives of a relevantly different environment's having substantially the same physical effects on the person's surfaces. (For example, one may conceive of an environment that lacks aluminium altogether, and contains some superficially similar metal instead, but in such a fashion that the person's body is not differently affected in any relevant way.) In such a case, the person plausibly lacks some of the originally specified thoughts. (The person lacks beliefs involving a concept of aluminium.) Differences in the nature of the environment with which the person interacts seem to affect the individuation of a person's thoughts, even though there is no difference in the way the person's surfaces, individually and non-intentionally described, are affected.

Thus both the Cartesian thought experiments and my anti-individualistic arguments make use of the possibility that different causal antecedents could have the same effects on the person's surfaces. The Cartesian might want to describe the causal elements in his thought experiments more richly: relevantly different causal antecedents have the same effects on the person's mind. But such a description would blatantly beg the question at issue. Whatever force the Cartesian thought experiments lend to individualism must lie elsewhere.

The epistemic observations centre on the point that one could be drastically wrong about the nature of the empirical world around one. Until this point is made into a claim about the difficulty of justifying one's beliefs, it has no sceptical force. But even in its

present form, the point is hardly uncontroversial. It tends to be the target of transcendental arguments. I shall accept it here for heuristic purposes, however, since my immediate aims are not epistemic. I want to grant a fairly strong epistemic conclusion from the thought experiments (one that I would not accept outright), and show, in a setting where scepticism is not at issue, that the conclusion by itself does not support individualism in the slightest.

So let us assume that we know or have reasonable beliefs about what the empirical world is like. And let us grant that the Cartesian thought experiments show that we could be radically wrong in these beliefs. That is, it is epistemically possible that the world be, or have been, very different from the way we reasonably think it is, or even know it is. This may be seen as a concession that we are deeply fallible. We can imagine being, and perhaps even being shown to be, pretty spectacularly wrong. But it is not a concession that there is reason to think that the beliefs that we are conceding might 'in principle' be wrong, really are wrong, or even are unjustified.

So what follows from this concession of the Cartesian epistemic possibility? Nothing immediate that favours individualism. We took our thoughts about the world as a *given* and conceded that they might be radically mistaken. But we conceded nothing about how our thoughts about the world are determined to be what they are. That is the issue before us. To assume that the epistemological intuitions occasioned by the Cartesian thought experiments support individualism is to make a step that needs justification. It is to beg precisely the question at issue.

It is a well-known point that in considering counterfactual situations we hold constant the interpretation of the language whose sentences we are evaluating in the counterfactual situations. It is quite possible to consider the truth or falsity of interpreted sentences even in counterfactual situations where those sentences could not be used or understood. Similarly for our thoughts when we are considering the Cartesian situations. We hold our thoughts constant. We consider situations in which the thoughts that we have would be false. And we concede that we could in principle be mistaken in thinking that the world is not arranged in one of the ways that would make our thoughts radically false. We do not ask how our thoughts' being false in certain ways would affect our thinking them. To ask what language or what thoughts would be possible if the world were in a given counterfactual state is to raise a question different from those

raised in the Cartesian thought experiments. Thus there is some tendency for a Cartesian to move without argument from the counterfactual features of the thought experiments to the conclusion that the individuation of thoughts is unaffected by any possible differences in the environment. The move, or conflation, begins with: 'Things might have been radically otherwise without our surfaces being differently affected; and relative to these imagined circumstances, our (actual) thoughts would be subject to numerous and radical errors'. It concludes with: 'Things might have been radically otherwise and our thoughts and minds would remain just as they are'. Taken by itself, the transition is completely without justification.

There is, of course, another factor in the transition. Descartes's individualism rests primarily on his view of the special authoritative character of our knowledge of (some of) our own thoughts. A reconstructed Cartesian argument for individualism might follow these lines: (a) Suppose that one imagines that one's thoughts are subject to error in one of the Cartesian ways. (b) One knows what one's thoughts are, and they would be mistaken. But (c) an anti-individualist position holds that in some of the Cartesian cases we would think thoughts different from those we actually think—we would be in different mental states. (d) This conflicts with our authoritative knowledge about what (some of) our thoughts are and would be: we know authoritatively that our present thoughts would be the same.

This argument equivocates between considering what our thoughts are and what they would be. We can imagine that our thoughts are radically mistaken. So we accept (a) for present purposes. (b) is correct: we know what our thoughts are and we can see that in the counterfactual circumstances, those thoughts would be mistaken. (c) is also correct. I think it true, and compatible with (a), that in some of the Cartesian situations in which our actual thoughts about the empirical world would be mistaken, we would not be thinking the thoughts that we actually are thinking. But contrary to (d) there is no conflict with reasonable characterizations of first-person authority. We are authoritative about some of our actual thoughts about the empirical world; and we can imagine those very thoughts being quite mistaken. Moreover, whatever our thoughts would be if the counterfactual situation were to obtain, we would be authoritative about some of them. But we are *not* authoritative about what our thoughts about the empirical world would be if the

counterfactual cases were actual. That is a philosophical issue, not a matter of what one's present mental events actually are. Although it may be settled by special, 'a priori' means, it is not an issue over which anyone has first-person (singular) authority. First-person authority presupposes our thoughts as given; we are then authoritative about those thoughts. But our thoughts are determined to be what they are partly by the nature of our environment. And we are authoritative about neither our environment nor the nature of that determination.

The problem of explicating the nature and source of the authoritative knowledge that we have of some of our present mental phenomena is close to the heart of the larger problem of explicating what is distinctive about persons. Here is not the place to elaborate a position on these matters. In opposing individualism, however, I am opposing the traditional rationalist assumption that in order to be authoritative about one's thoughts, one must be authoritative about (or at least be able to know a priori) all conditions for determining or individuating the nature of those particular thoughts. I believe that there is no simple, cogent defence of this assumption, certainly none that is immediately sustained by the Cartesian thought experiments.

Although all of these points demand development, what I have said so far seems to me to undermine the sense that the Cartesian thought experiments provide simple, direct support for individualism. It is easy to see how we might be involved in either or both of the two conflation that I have just warned against: conflating questions of counterfactually evaluating one's thoughts with questions of what thoughts one would think if one were in the counterfactual situation; and conflating the fact that we are authoritative about our actual thoughts, and would be authoritative about what our thoughts would be in any (relevant) counterfactual situation, with the claim that we are actually authoritative about certain thoughts that we would be thinking regardless of what actual or counterfactual situation we would be in. I think that the belief that the Cartesian cases support individualism usually rests on one or both of these conflations. The individualist needs arguments beyond what the intuitive thought experiments yield.

I want to close this section by mentioning a very common argument for individualism that involves a crude version of the sort of thinking that infers the doctrine directly from the Cartesian thought

experiments. It begins by noting that we could have the same perceptual experiences, same perceptual representations, whether these were veridical perceptions, misperceptions, or hallucinations. Similar points can be made for other intentional mental phenomena. The argument concludes from these observations that perceptual experiences are independent, for their intentional natures, of the perceiver or thinker's environment. This inference has no force. Questions of veridicality are judged with respect to given mental states. It is a further question how those states are determined to be what they are. The natures of such states are determined partly by normal relations between the person or organism and the environment. Error is determined against a background of normal interaction. I will develop this idea in the next section.

2. It seems to me that a deeper consideration of perceptual error and veridicality provides powerful grounds for rejecting individualism. I begin with the premiss that our perceptual experience represents or is about objects, properties, and relations that are *objective*. That is to say, their nature (or essential character) is independent of any one person's actions, dispositions, or mental phenomena. An obvious consequence is that individuals are capable of having perceptual representations that are misperceptions or hallucinations: a person may have a perceptual representation even though he or she is perceiving nothing of the kind that is perceptually represented. A stronger consequence of the premiss is that, in any given case, all of a person's perceptual capacities, and indeed cognitive capacities, could in principle be mistaken about the empirically perceivable property (object, relation) being perceptually presented. To put this consequence with some gesture at precision: for any given person at any given time, there is no necessary function from all of that person's abilities, actions, and representations up to that time to the natures of those entities that that person perceptually interacts with at that time (and is capable of perceiving at that time and earlier).

Our second premiss is that we have perceptual representations (or perceptual states with contents) that *specify* particular objective types of objects, properties, or relations *as such*. Representations specify such objective entities as blobs, bars, boundaries, convexity, cones, rough texturedness, being farther from x than from y ; and they specify them *as* blobs, bars, boundaries, and so on. The 'logical form' of such perceptual representations is not particularly

important to our argument. I am inclined to think that some have the form of 'that boundary'. But as far as our argument is concerned, all could have the form 'that is a boundary', or 'there is a boundary there', or even (what I consider quite implausible) 'there is a boundary there causing this perceptual experience'.² The important thing is that the representations specify some particular objective entities (e.g. a boundary) as such (e.g. as a boundary). They do not simply describe those entities in terms of their role in causing perceptual states of a certain kind. For example, I assume that perceptual representations do not all have contents like those of 'what-ever normally causes this sort of perceptual representation'—or 'whatever normally has this sort of perceptual appearance', where the description denotes some objective property.

There are a variety of reasons why this latter sort of perceptual representation is not fundamental or canonical. The idea that our perceptual representations make primary reference to themselves is an old philosopher's tale with little or no genuine plausibility. I take it that attribution of such complicated perceptual representations is implausible on its face. And to get the description to apply to appropriate entities (as opposed to antecedent or intermediate occur-

² The second premiss is in conflict with Descartes's view that one cannot make perceptual errors because one perceives only one's own mental phenomena. According to this view one infers (wills to infer) the existence of objective properties causing those phenomena. Cf. *The Principles of Philosophy*, Pt. II, Principle III; *Meditations* VI. A similar view embraced Russell. Cf. *The Problems of Philosophy* (Oxford University Press, London, 1912), Chapter 3; *The Analysis of Matter* (Dover, New York, 1954). I have discussed these sorts of views briefly in 'Individualism and Psychology', op. cit. John Searle, in *Intentionality* (CUP, Cambridge, 1983), Chapter 2, argues that the content of perceptual states is always self-referential, in the last of the ways listed in the text. I find the argument unpersuasive in that it depends on an undefended conception of 'conditions of satisfaction'. I do not think that there is strong reason to think that perceptual experiences have as complicated contents as he claims, and do not think that those contents are self-referential. (Searle's examples all concern recognition—a very late stage of perception. Cf. David Marr, *Vision* (W. H. Freeman and Company, San Francisco, 1982).) Still, these disagreements are not crucial to my argument. Searle's purportedly individualistic contents contain specifications of objective entities as such—for example 'a yellow station wagon'. So such contents satisfy the requirements of my argument.

Perhaps this is a good place to emphasize that neither this premiss nor any other part of the argument relies essentially on any particular notion of content or representation. I use these notions without apology, but I am aware that there are those who think they see something wrong with this sort of talk. For purposes of the argument this language may be regarded as a variant on talk about the type of intentional state. Clearly perceptual experiences are properly specified and individuated in such intentional terms. The argument concerns the nature and pre-conditions for the states and events thus individuated.

rences, such as arrays of light striking the retina), the descriptions would have to be complicated in ways that have never been fully articulated. Such complications make a bad case worse. There is no reason to think that notions like normality, or causation as a relation between objects and perceivers, or appearance, enter into primary perceptual experience. These notions are developed from meta-reflection on that experience.

Moreover, to be appropriately informative the perceptual representation would have to specify the *sort* of phenomenological type that it itself instantiated: 'this sort' is simply too unspecific to account for the reticulated array of perceptual types that we recognize and discriminate. But the idea that we classify our perceptual phenomenology without specifying the objective properties that occasion it is wildly out of touch with actual empirical theories of perception as well as with common sense. The sorts of complicated representations that we have been discussing seem to me to have little place in perception at all (as opposed to sophisticated, self-conscious, discursive reflection on perception—where they presuppose classifications of perceptual types in terms of public entities). But our argument requires only that they not be the only sorts of perceptual representations that we have.

In a sense, this second premiss is a rejection of what used to be called the representational theory of perception. According to that theory, we primarily perceive, or at least primarily make reference to, *representations* of objective entities; we make reference to objective entities *only* indirectly—by assuming or inferring that there are objective counterparts or causes of the representations that we make direct perceptual reference to. I take it that this theory is discredited and rarely defended nowadays. It is implausible for the reasons I have mentioned. Among our perceptual representations are surely specifications, not merely role descriptions, of objective entities.

Although this second premiss is worth articulating, I think that at a deeper level of argument, it can be dispensed with. I believe that the second premiss is ultimately a necessary consequence of the first: we can make veridical perceptual reference to objective entities of a given type only if we can make perceptual reference to them as such. But I shall not take on the burden of arguing that here.

Our final premiss is that some perceptual types that specify objective types of objects, properties, and relations as such do so partly because of relations that hold between the perceiver (or at least

members of the perceiver's species) and instances of those objective types. These relations include causal interaction.³ If there were no such relations, a perceiver would lack at least some perceptual intentional types that he or she has.

The premiss derives from the fact that perceptual experience, and the formation of perceptual representation, is *empirical*. The intentional nature of some of our perceptual representations—what information they carry, what they mean—depends partly on the way epistemically contingent aspects of the world that occasion them actually are. Our perceptual information and our informational and representational states are worked up out of empirical interaction with an objective world.

The force of this point was obscured in the Locke-to-Hume tradition by a peculiar distortion. The empirical character of perception was depicted as if it were (at most) a purely causal affair. The perceptual types were considered to carry information about the world intrinsically—because of their shape in the image, for example. The role of the objective world was simply to cause appropriate ones among these information-bearing percepts to pop into the mind at appropriate moments.

Behind this distortion was the intuitively powerful but primitive idea (deriving from pre-Cartesian Aristotelians and prominent among post-Cartesian empiricists) that perceptual representations represented by virtue of similarity with their objects. This idea seems now to have little explanatory value. How could similarity alone (even assuming that the relevantly similar respects were articulated) explain perceptual representation? Among post-Cartesian empiricists the answer sometimes relied on the representational theory of perception, which we have just discussed: we represent objective empirical entities by representing subjective counterparts that are similar and by representing or inferring a relation between subjective and objective correlates.

Descartes and his rationalist successors either rejected or laid little weight on explanations in terms of similarity. But they tended to

³ I think that these relations always include intentional application—a notion that I have discussed elsewhere in some detail. Cf. 'Belief *De Re*', *The Journal of Philosophy*, lxxiv (1977), 338–62; and 'Russell's Problem and Intentional Identity', in J. Tomberlin (ed.), *Agent, Language, and the Structure of the World* (Hackett Publishing Company, Indianapolis, 1983). The relation of application to the present set of issues is in fact complex and worth pursuing. But pursuit is inappropriate here.

retain the view that perceptual representational types carry information or have their representational characters in complete independence of the way the empirical world is. Theological and idealist considerations were imported to shore up the objectivity and cognitive value of perceptual representation. And the whole tradition fell prey to Humean scepticism.

In retrospect, this set of ideas seems strange. Not only do our perceptual presentations or experiences have the qualitative features that they have because of the law-governed ways that our sense organs and neural system interact with the physical environment. But their giving empirical information to conscious beings about the environment—their representing it—depends on their qualitative features being regularly and systematically related to objective features of the environment. No matter what their phenomenological character, perceptual presentations can represent objective empirical features beyond themselves as such only through having instances stand in regular causal relations to instances of those objective features.

Granted, certain of our visual representations may be ascribed attributes that are the same as or at least analogous to attributes of the objective entities that they represent. Our perceptual representation-in-the-image of a straight line may perhaps itself be said to be 'straight'. The image may be thought of as like a picture with some elements that have properties (for example geometrical ones) that correspond to some of those that it depicts. (Of course, this line has been vociferously doubted by many philosophers; but I shall grant it for present purposes. Doubters have one less obstacle to agreement with our primary position.) Even where such analogies hold, they do so at least partly because of the laws of optics, the natures of our bodies, and the geometrical characteristics of physical objects. And similarities in the perceptual image are of representational significance only because and only in so far as they are formed through regular interactions with objective entities.

It must also be noted that any such similarities are limited in scope. Whatever similarities perceptual representations of three-dimensional orientations, or of three-dimensional shapes, or of occluding edges, bear to their objects are certainly not sufficient even to suggest a unique match. In such cases, which surely include the bulk of our perceptual representations, there is no other natural way to specify the intentional content of the perceptual experiences than

by reference to the types of objective entities that they are normally applied to.

The third premiss states that some of a perceiver's perceptual types take on their representational characters partly because their instances interact in certain ways with the objective entities that are represented. It does not claim that all do. It is plausible that many perceptions are composites of others. In some few cases, the whole may be representational, though it is *never* formed by interaction with actual objects. One thinks of hallucinations of pink elephants or unicorns. Moreover, some representations at the level of recognition capacity (beyond the level of early vision) may be heavily informed by background theory, in such a way as to acquire representational character independently of any interaction. Again, these cases seem very much the exception. Still, it would be a mistake not to allow for them.

There are other ways that perceptual states may acquire their representational characteristics. Sometimes the evolutionary history of a species may form a perceptual tendency in members of the species that has representational characteristics that depend in some way on interaction between an individual's ancestors and objects of a relevant sort. The intentional content of a perceptual state may be independent of the individual's learning history. Instances of the state could, in an individual, be occasioned in an abnormal way, yielding misperceptions not preceded in that individual by veridical perceptions. Our premiss could be complicated to accommodate such possibilities explicitly. But the basic anti-individualistic thrust of the argument that follows would be unaffected.

The empirical character of perceptual representation formation is evinced in our common methods of interpreting a creature's perceptual experience. When we seek to determine the intentional content or representational types in a creature's perceptual experience, we determine what objective properties are discriminated by its perceptual apparatus. That is, we build up intentional type attributions by determining the types of objective entities whose instances regularly causally affect the creature's sense organs and are normally discriminated perceptually by the creature—or at least by creatures of the same species.

This fact about perception constitutes, I think, a qualified basis for the oft-repeated slogan that error presupposes a background of

veridicality.⁴ I think that this slogan is sometimes misused. I think that we are not immune from fairly dramatic and wholesale error in characterizing the nature of the empirical world. But I do think that we are nearly immune from error in asserting the existence of instances of our perceptual kinds, and of other kinds that are taught by more or less immediate association with perceptually based applications. I think that (induced) massive perceptual hallucination or a total lack of regularity between an individual's experience and his or her environment are the only possible explanations for an individual's perceptual experiences *always* systematically failing to apply to the world.

Most perceptual representations are formed and obtain their content through regular interaction with the environment. They represent what, in some complex sense of 'normally', they normally stem from and are applied to. It makes no sense to attribute systematic perceptual error to a being whose perceptual representations can be explained as the results of regular interaction with a physical environment and whose discriminative activity is reasonably well adapted to that environment.

So there are our three premisses: our perceptual experience represents objective entities; perceptual experience specifies objective entities as such; and the formation of perceptual representation (of perceptual intentional types) is empirical. We are now in a position to argue that individualism is not true for perceptual representation.

We begin with an individual with perceptual experience of objective entities. The person normally perceives instances of a particular type of objective entity (call it 'O') correctly (as *O*s). But imagine that one or more of his or her perceptual experiences involves misperception. At time *t*, the person misperceives an instance of another

⁴ The slogan has roots, I think, in Kant's point that the concept of seeming makes sense only in contrast to the concept of being. Cf. *The Critique of Pure Reason*, 'The Refutation of Idealism'. The point regained prominence in Quine's 'Principle of Charity', *Word and Object* (MIT Press, Cambridge, Massachusetts, 1960), Chapter II; and it has been employed in different ways by Donald Davidson, for example in 'On the Very Idea of a Conceptual Scheme', in his *Inquiries into Truth and Interpretation* (Clarendon Press, Oxford, 1984). I am inclined to believe that Quine and Davidson sometimes use this important idea with insufficient discrimination. But the issues here are again complex, and require more development than I can undertake. I should note, however, that in the remarks that follow my terms 'characterization' and 'application' are terms of art. Cf. 'Intellectual Norms and Foundations of Mind', *op. cit.*, and the works cited in n. 3.

type of objective entity (call it 'C') as an *O*. That is, an instance of *C* is present and is causing the perceptual experience. Since *C* and its instance are objective, it is in principle possible that all the given person's sensory modalities together might be fooled. In fact, we may imagine that given what the person knows and can do at the time of the misperception, he or she cannot discriminate the actual situation, at that time, from the one he or she represents. We may even imagine that nothing the person does or is disposed to do up until time *t* would (on this particular occasion) have discriminated between this instance of *C* and an instance of *O*.⁵ Our first premiss gives us this much. The objectivity of the objects of perception entails that there is always a possible gap between the proximal effects of those objects on an individual's mind or body (and the sum of what the person represents, thinks, and can do), on one hand, and the nature of the objects themselves, on the other. The same proximal effects, representations, thought, and activity could in certain instances derive from different objective entities.

The first premiss also yields the following counterfactual. We fix those of our person's physical states and discriminative abilities that can be specified non-intentionally and independently of the nature of his or her environment. But we conceive of a counterfactual environment in which the sort of entity *O* that the person actually represents never occurs. Instead, the sort of proximal stimulations that are actually normally caused by instances of *O* are counterfactually normally caused by instances of *C* (or at any rate by something other than instances of *O*). We may further imagine that members of our person's species have evolved so as to adapt to this situation. They regularly obtain information about instances of *C*; and we may imagine that their physical movements and discriminative abilities are quite different from the ones they have in the actual circumstances. Only the protagonist's body, non-intentionally and individually specified, need remain the same.

⁵ There is no need to assume that the instance of *C* is in principle unverifiable or indistinguishable as an instance of *C*. Another person with relevant background information might be able to infer that the instance of *C* would produce a perceptual illusion. Another person with different dispositions might even be able to perceive the difference between the instance of *C* and an instance of *O*. It need not be that all instances of *C* always look like instances of *O* to other members of the species. It is enough for the argument that instances of *C* that our protagonist is exposed to not be discriminable by him or her from the instances of *O* that he or she has been exposed to.

We assume, using the second premiss, that in both actual and counterfactual situations, our person has perceptual experiences that are or include specific specifications of the relevant objective entities. For example, if in the actual situation, *P* correctly perceives an instance of *O*, the person perceives it as an *O*. By the third premiss, since the objective entities that the person normally interacts with—and perceives as such—differ between actual and counterfactual situations, and since the laws explaining these interactions differ, the perceptual intentional types of the person also differ. Counterfactually, he or she perceives a *C* as a *C*, not as an *O*. Our protagonist's perceptual experience at *t* in the counterfactual situation is not a misperception, but is in fact veridical. (What is important is only that the perceptual state does not specify anything as an *O*.) But the person's physical states, discriminative abilities, and perhaps purely phenomenological (non-intentional) states remain the same between the two situations. So the person's intentional perceptual types are not individually individuated.

It is easiest to imagine an example concretely if the case is taken from the more primitive (but still conscious) stages of vision. For then elaborate conceptual or verbal dispositions associated with the visual state need not be brought into consideration. More dispositions complicate the attempt to imagine a case in detail. But they do not affect the logic or soundness of the argument already given. As long as the first assumption about objectivity is in place, there is the guarantee that there is no unique fit between non-intentional dispositions and the represented environment.

To fix an example, we may imagine that the sort of entities being perceived are very small and are not such as to bear on the individual's success in adapting to the environment. An *O* may be a shadow of a certain small size on a gently contoured surface. A *C* may be a similarly sized crack. The individual *P* encounters several *O*s, and they are commonly seen in the environment. In the only case(s) in which *P* encounters a *C*, *P* may have no dispositions that would discriminate the instance of *C* from an instance of *O*—although *P* might in principle have been taught such procedures, and although other individuals may have them. For example, *P* may have no dispositions involving touch that could be used to discriminate them, perhaps because the relevant entities are too small, or because *P* is not disposed to rely on non-visual modalities in such cases, or because touch itself is fooled. Still, if only *O*s normally cause visual

representations of the sort *P* has, if *P*'s having those representations is explained in terms of their relation to *O*s (characterized as *O*s), if *P* can discriminate *O*s from relevantly different things in the environment, and if *P*'s visual or cognitive systems have some means of distinguishing objective entities from subjective ephemera (most of the time), then *P*'s visual representation may specify *O*s as such. The misperception of a relevant sort of crack as a relevant sort of shadow may be a result of a one-time causal aberration.

We may assume, if we wish, that in the actual situation—given *P*'s abilities, and the actual laws of optics—*P* would be capable of visually discriminating some instances of *C* (cracks of the relevant sort) from some instances of *O* in ideal circumstances. But we are supposing that *P* is confronted by only one or a few instances of *C*; and in those cases, circumstances are sufficiently non-ideal so that all *P*'s abilities would not succeed, in those circumstances, in discriminating those instances of *C* from instances of *O*. *P* misperceives the relevant cracks as shadows.

Now imagine a counterfactual case. Owing to peculiar optical laws or effects, there are no visible *O*s—no shadows (visible to *P*'s species) of relevantly similar shape and size on gently contoured surfaces. The optical laws are also such that all the visual impressions caused by and explained in terms of *O*s in the actual situation are counterfactually caused by and explained in terms of *C*'s—relevantly sized cracks. The cracks are where the shadows were in the actual case. Suppose also that at the (few) time(s) when in the actual situation *P* is confronted with a *C*, *P* is also counterfactually confronted with a *C*. None of the differences relevantly affects the physical history of *P*'s visual system or any of *P*'s other physical stimulations, physical dispositions, or physical activity.⁶ In such a counterfactual situation, *P* would normally be visually representing *C*'s—relevantly small cracks—as *C*'s. *P* would never be visually representing, or misrepresenting, anything as an *O*. One can imagine that in the counterfactual case, even if there were appropriately sized shadows on relevant surfaces, the different laws of optics in that counterfactual

⁶ One may imagine that the dispositions that would, in the actual case under ideal circumstances, have visually discriminated *C*'s from *O*s would, in the counterfactual case, be activated in circumstances that provide discrimination of some other type of thing from *C*'s. Given the very different physical environment and laws, one can imagine these dispositions to have almost any visual meaning that one likes.

case would not enable *P* ever to see them. If this were so, one could hardly take *P*'s visual impressions (physically and perhaps phenomenologically the same as in the actual case—but explained as *non-mentally* caused by cracks) to be misrepresentations of things as the relevant sort of shadows. For we imagine *P*'s visual impressions to be caused in a regular way by the objects *P* is looking at. The visual impressions provide as sound a basis for learning about the environment in the counterfactual case as they do for learning about the (different) environment in the actual case. Counterfactually, *P*'s intentional perceptual states are different: *P* sees *C*s as *C*s.

The general strategy of the argument is simple. The first premiss notes a possible gap between a person's physical states and intentional states, on one hand, and the state of the world that is seen, on the other. Holding the relevant physical effects constant, we imagine different visible objects in the world, and different optical laws normally and regularly relating those objects to the person's physical states. In such a case, it is clear that some of the person's intentional visual states, at least some of those that specify objective entities as such, would be different. The second and third premisses of our argument already jointly indicate that a person's intentional perceptual states are in fact not individuated individually. These premisses presuppose the first. The first premiss makes explicit the possibility of error, and thereby indicates that the non-individualist methods of individuation, indicated by the second and third premisses, do not 'in principle' have counterpart methods that are individualistic.

If one relinquishes the claim that a person's perceptions represent objective entities, then the argument collapses. All three premisses are undermined. So as applied to a solipsistic thinker, the argument is powerless.⁷ On the other hand, the objective and empirical

⁷ Perhaps one should see in this light the fanciful examples of beings that are bodily identical to us over a period of time, but that are extended quantum accidents with no regular relations to their physical environment. There is perhaps enough in the mental events of such beings to count them thinkers. (Actually, this seems to me problematic: there are problems about dispositions; but let them pass.) Whatever thoughts they entertain have no determinate *objective* reference. Their mental goings on and their physical movements are compatible with successful adaptation to and regular causation by any one of an infinity of possible environments. Such intentionality as their phenomenological states have should perhaps be seen as making reference to qualitative phenomenological types, not to objects that are in principle

character of perceptual representation seems to guarantee non-individualistic intentional perceptual states, and non-individualistic methods of individuating them.

independent of the individual's thought and perception. For such a being, individualism is perhaps true. But its truth would be bought at the price of interpreting the thinker as a solipsist unawares. I leave the ultimate coherence of such a description an open question.