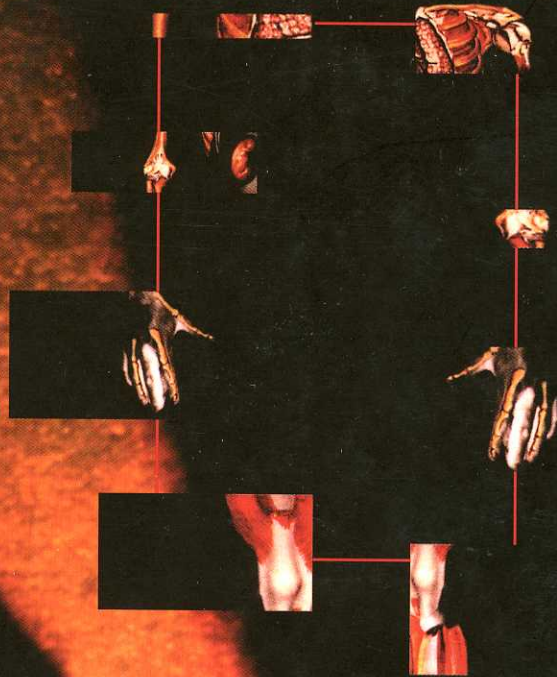


THE BODY AND THE SELF



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The Body Image and Self-Consciousness

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1 Reference and Conceptual Role

The problem that concerns me here is the relation between, on the one hand, the way in which the reference of the first person is fixed and, on the other hand, the bases on which we make first-person judgments and the consequences we draw from them. The first person is a singular term, one used to identify a particular thing. My question is a special case of the problem of the relation between the way in which the reference of a singular term is fixed and the ways in which we go about verifying judgments using the term and drawing the implications of such judgments. This, in turn, is a special case of the problem of the relation between the ascription of a semantic value to a term and its “conceptual role”: the bases on which we make judgments involving it and the consequences we draw from them.

Can we be explicit about the relation between conceptual role and the way in which the reference of the singular term is determined? There is a sense in which the bases on which a judgment is made must be “in concord” with whatever fixes reference:

Concord The bases on which judgments using a singular term are made must yield knowledge of the object assigned as reference.

If we are given the conceptual role of the term, this puts a constraint on what we can regard as fixing its reference. If we are given the reference, this puts a constraint on what we can regard as the conceptual role of the term.

The crucial point about this epistemic condition of concord is that it can be met without the reference-determining relation itself being an epistemic relation. Russell identified the reference-fixing relation with “acquaintance,” an epistemic relation that the referrer stands in to the object referred to. And many philosophers have followed him in this,

though parting from him over the characterization of acquaintance. But the principle of concord can be met even if the reference-fixing relation is not acquaintance itself. It can be met in the case of the first person even though its reference is fixed by the rule that any token of the first person refers to whoever produced it.

There is more to say about the relation between reference and conceptual role. There is a need for a certain richness in the conceptual role if we are to have a term that refers to an object. Consider the possibility of subjectless reports of the sort noted by Georg Lichtenberg, such as 'There is thinking'. Here there is no reference. There is only the response to encountering the psychological state, the cry of greeting, 'Thinking!' This kind of subjectless report need not be confined to psychological states. One could also use it for laconic reports of physical condition, such as 'Drenched!' Someone speaking and thinking in this subjectless way might make reports that constitute knowledge of the properties reported. And this knowledge might all be knowledge of the very person speaking. But there would not yet be any use of a term according to the rule that any token of it refers to whoever produced it. We do not yet have the use of a term referring to an object.

There is a contrast here between the first person and the cases of 'here' and 'now'. Suppose that we have a child who has been taught to say 'Rain!' in response to rain. We wonder whether his use of this term is genuinely unstructured, or if it is to be read as elliptical for 'Rain here!' An utterance of the unstructured expression is correct just when an utterance of the structured expression is correct, so how are we to tell which the child is using? If the child is grasping the structured thought, there must be structure in his grasp of it. He must be exercising a pair of conceptual abilities: the ability to think of rain and the ability to think of it as here. If the child has these separate abilities, he ought to be able to exercise them separately. So in particular, he ought to be able to think about rain at other places: 'Rain over there', 'Rain in the valley', and so on. If he cannot do this, we should regard his utterances as unstructured. If he can do that, then this shows a grasp of 'here'. We can make a parallel point about the use of the present tense, distinguishing between significantly tensed and more primitive, unstructured talk.

Can we use this model in the case of the first person? The idea would be that what makes one's judgments of the presence of some characteristic, *Fness*, into first-person judgments, 'I am *F*', rather than unstructured Lichtenbergian reports of *Fness*, is understanding the possibility that other people are *F*, so that one also understands 'She is *F*', 'Bill is *F*', and so on. There certainly must be this structure in one's understanding of first-person judg-

ments, but it does not seem to be enough to explain the difference between them and unstructured formulations. The difference between 'here' and the present tense, on the one hand, and the first person, on the other, is that the first person is referring to an object. Simply finding the above structure in one's understanding would be consistent with the following possibility: one's uses of ' x is F ' in connection with other people ascribe properties to objects, whereas one's use of the form, 'I am F ' is actually equivalent to the unstructured ' F ness!'

It might be said that there is no sharp difference between feature placing talk and referring talk. We can make sense of logically complex feature placing, in which a plurality of features is ascribed to a single spot. 'Leafy and green over there!' one might exclaim, pointing to the dell, or, in more sombre vein, 'Cold and dark in here!' Once one allows that logically complex features may be ascribed to a place, there is no bound on the complexity of the features that may be ascribed. Talk about a concrete thing, it may be held, is just talk about a rather large collocation of features, so there is only a difference of degree between talk about objects and feature-placing. Of course, if we try to apply this approach to the case of psychological properties of persons, there is a question about whether we can speak of all the properties as being ascribed to a single place, or if the notion of place could have only a metaphorical use here. But I will not pursue this special question about persons here, for there is a general problem with that approach to reference to concrete objects in general.

The problem with the feature-placing approach is that it does not give due weight to grasp of the causal role of a concrete object in one's ability to refer to it. We do not think of a concrete object as simply a collocation of features. This shows up in the fact that for one to be using a singular term to refer to an object, there must be a certain density and structure in the conceptual role one assigns to the term. Consider the case of an ordinary physical thing, such as a table or a tree. We take it that the condition of a thing at any one time is causally dependent upon its condition at earlier times. One of the determinants of its properties at a given time is what properties it had earlier, and this is so no matter how much it has moved around. The notion of internal causal connectedness is presupposed in our grasp of the way in which objects interact. For if we are to have any appreciation at all of the effect that one object can have upon another, in a collision, for example, we have to understand that one central determinant of the way the thing is after the collision will be the way that the very same thing was before the collision. We have to understand the dependence of objects on their earlier selves in order to grasp that their earlier selves are only partial determinants of the way they are now and

that external factors may have played a role. Thus, in describing our ordinary thought, we need a distinction between the causality that is, as it were, internal to an object and has to do with its inherent tendency to keep its current properties, or for them to change in regular ways, and the causality that has to do with the relations between objects and the ways in which they act upon each other (Shoemaker 1984). There is another dimension to the ordinary notion of a physical object, and it has to do with the capacity of the object to figure as a common cause of many disparate phenomena: one and the same thing can figure in many interactions, and correlations in the upshots of these interactions may demand explanation by its having been one and the same thing that was involved in all of them. This imposes further discipline on the notion of a physical thing, over and above the fact that its later stages causally depend on its earlier stages. Without the point that one and the same thing can figure in many interactions, something might be internally causally connected and yet capable of only one type of interaction, such as being perceived. This is not how we ordinarily conceive of physical things. I want to propose that to refer to a concrete thing with one's use of a singular term, one's use of the term must display a grasp of these two dimensions of causal structure. In effect, the upshot of this requirement is that to use a term to refer to a physical object, one must grasp, as coordinate with the term, a range of predicates that can be coupled with the term. And in one's use of these predications, one must operate with the idea that the later condition of the object causally depends on its earlier condition and the idea that the object can function as a common cause of many phenomena. For one to be using a term to refer to a concrete thing, a condition of richness in the causal structure of the reasoning one can engage in when using the term is the following:

Causal Structure To be using a term to refer to concrete object, one's reasoning using the term must display a grasp of the two dimensions of the causal structure of the thing: being internally causally connected over time and being a common cause of many phenomena.

Obviously, this condition applies to reference to concrete objects rather than to names for abstract objects, such as the numbers. I now want to look at how it applies to the case of the first person.

2 Body Image and Body Schema

Many recent discussions give central role, in one's conception of oneself, to the notion of a body schema, this being explained as, for example, "a superordinate representation at the interface between sensory and motor

processes that both internally and externally specify a posture" (Bairstow 1986, Butterworth 1990). But whether this is really enough for the individual to have the conception of himself as a concrete thing depends very much on just what kind of work the representation is supposed to do.

A child without language, or an animal for that matter, can put to use a body schema, a representation of its current posture that interfaces between perception and action. A body schema could be involved in, for example, the use of vision to control and correct one's posture (Lee and Lishman 1975). But even if a body schema is implicated here, this does not establish self-consciousness. Similarly, the capacity of an infant to imitate the facial expressions of adults may show that the infant has a representation of its own face, perhaps by using the same system of spatial representation to represent its own face and that of the adult (Meltzoff 1990a; Meltzoff 1993; Meltzoff and Moore, in press). But neither use of the body schema shows that the child has a conception of itself.

The picture changes somewhat when we consider work done by Andrew Meltzoff on older children, at 14 months. These experiments still concern imitation, but what is in question is the child's recognition that it is being imitated, rather than its capacity to engage in imitation itself. These children really do seem to be displaying some rudiments of self-consciousness. In one of these experiments, the child faced two adults across a table. One of the adults imitated everything the child did; the other simply sat passively. The child looked longer at the imitating adult, smiled more often at him, and directed more test behavior at him, that is, behavior designed to test whether the adult really was imitating the child, such as sudden or unexpected movements. Of course, this might mean only that the child preferred an active adult to a passive one. So in a later experiment, two TV monitors were placed behind the infant, invisible to it but watched by the adults. One of the two screens showed a live transmission of the infant. The movements on this screen were imitated by the first adult. The second screen showed a videotape of the child from the preceding session, and this child was imitated by the second adult. Again, the result was that the child looked longer at the imitating adult, smiled more often at him, and directed more test behavior at him (Meltzoff 1990b). Here the child's use of a representation of its body seems to involve the child in grasping its own causal impact on the world around it. The child seems to be grasping that the movements of the imitating adult are controlled by its own movements.

Various distinctions have been drawn between the body schema and the body image. The body schema is the representation of one's body that mediates perception and action, that one uses in adjusting one's movements to how one sees things around one to be (Nathan 1983). The body

changed as a result of having a skin graft or the loss of a limb or simply growing up. It describes how one is shaped and sized and hinged—what possibilities of movement are open to one. The short-term body image, in contrast, describes how one happens to be configured here and now, the particular posture one is in. One's current short-term body image, together with the long-term body image, describe all the possibilities of movement open to one. So these representations might be held to provide one with a practical grasp of one's internal causal connectedness. These representations display how one's future posture is causally dependent upon one's current posture. Of course, it is a further question how one might set up a paradigm to test for these representations in infants.

3 The Token-Reflexive Rule

So far I have been describing a range of bases on which one might make first-person judgments, all involving the use of a body image. These bases give us a conceptual role which is "in concord" with the token-reflexive rule, in the sense I explained earlier. The judgments one makes using a body image really do all give knowledge of the very thing that, using tokens of 'I', produces the judgments. And the first-person reasoning used can put to work the two dimensions of the causal structure of a thing, so that the causal-structure condition is met.

This description of conceptual role is not enough, however, to explain why the first person is governed by the rule that any token of it refers to whoever produced it. So far as this description of conceptual role goes, we could have here, rather, a demonstrative with something of the force of 'this body'. This would be a term that stands to the body image somewhat as a perceptual demonstrative like 'that tree' stands to the perception of the tree. The reference of 'I' would then be fixed as the body of which one's body image gives one information. A full description of the conceptual role of the first person ought to explain what differentiates it from such a demonstrative. One line of thought on this begins by remarking that so far we have looked only at the bases on which first-person judgments are made. But 'conceptual role' includes the consequences of the judgments. So perhaps we ought to look, in particular, at the implications for action of first-person judgments (Perry 1979). But it seems unlikely that this will help us here. The body image itself must be supposed to have some immediate role in directing action. So a demonstrative based on it, 'this body', might be expected also to have immediate connections to action. To understand what separates the conceptual role of the first person from the conceptual role of such a demonstrative, I think we have to give

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weight to the fact that the first person can be used in judgments about psychological states.

The role usually assigned to the body image in self-consciousness is to provide one with awareness of oneself as a physical thing, a corporeal object, rather than as something purely psychological. But the body image has a role to play in understanding one's psychological states, and not just in providing a location for one's sensations. Much of ordinary life centers around a capacity for social interaction, a capacity to react to the psychological states of other people and to recognize the impact of one's own psychological states on them. In an understanding of how one's psychological states affect other people we find the role of the body image in self-consciousness, for through use of the body image, one grasps how one is affecting other people. As I began by remarking, the notion of a concrete object is a causal notion. This notion is a notion of the kind of thing that can function as a unit in causal interaction with other objects. For example, the notion of shape is integral to how we ordinarily think of physical things: we think of them as having shapes. But an understanding of the physical significance of the notion of shape requires one to grasp how it affects the capacity of the object to interact with other things. The shape of an object will affect whether it can be stacked together with other things, rolled along, or used to smash other things. Now when we think of the causal role of psychological states, we tend to think of it as having to do with the relations among the psychological states of a single person. The fact that my gloom can have social significance, producing gloom in others or even anxiety or relief, is not thought of as being part of the causal role of gloom. But if we take seriously the analogy with the shape of a physical thing, we ought to be willing to acknowledge that the role of a psychological property in interactions between objects is part of its causal role. The fact that mental states play a causal role in interactions between people is, I will suggest, part of what makes it possible for us to think of persons as concrete objects, and reflection on the point brings out just what is special about persons and sets them apart from other concrete objects. Before turning to how one grasps one's functioning as a common cause at the psychological level, though, I want to look at how one registers one's own internal causal connectedness at the psychological level.

4 Psychological Structure over Time

How might one put to work the idea of oneself as internally causally connected over time, at the level of psychological properties? An understanding of the causal dependence of my later psychological states on my earlier psychological states shows up when I say, for example, that my grief has

turned to anger. But causal dependence need not involve change of state: my later anger might causally depend on my having been angry earlier; I was angry all along.

What does it come to, though, that there is this causal dependence? Why not think simply in terms of a sequence of psychological states, without assuming anything about the causal relations between them? As a model, consider the pool of light thrown on a wall by a projector spotlight shining through heated oil, with the result that the colors on the wall move and change. Or more simply, consider someone doing hand shadows. The later stages of the pattern on the wall follow the earlier stages, but they do not causally depend upon them. So could one not think of one's own mental states in this way, as being a shifting or stable kaleidoscope, with no internal causal structure? What difference does it make if one doesn't? In the case of the pool of light, what makes it evident that we do not think of it as internally causally connected is our pattern of expectations as to what will happen in the event of an interaction between the pool of light and something else. Suppose, for example, that another pool of light, moving across the screen, crosses its path. That will change the character of the pool for the moment, but when the second spot moves on, the first pool will be exactly as it would have been anyhow. These temporary modifications to the pool of light do not affect how it will be later, and recognition of that fact constitutes our grasp of the fact that the pool is not internally causally connected over time (Salmon 1984).

If this line of thought is right, then what constitutes grasp of the fact that one's later anger causally depends on one's earlier grief is an understanding of what the impact would have been of various interactions with one's surroundings. "If only I had known!" one might say after the anger has led to catastrophe. "If only he had told me, if only I had seen her, my grief would not have turned to anger." Once one can think in this way, one is thinking of one's own psychological states as internally causally connected. Since we are forced here to think in terms of the lasting impact of interactions with the environment, it seems that an understanding of the relation between perception and memory will be central to grasping one's own internal causal connectedness. For if one has to think of the ways in which one could be enduringly affected, at the psychological level, by the things around one, then it is surely basic that what one remembers depends on what one perceived earlier.

5 The Social Dimension of Causal Role

We saw that the conception of a thing as internally causally connected gives one dimension of its causal structure. The other dimension was the

idea of the thing as a common cause of various phenomena. What we have just seen is that the conception of oneself as internally causally connected can be exercised with regard to one's psychological properties. Does anything parallel hold for the idea of oneself as a common cause?

Let us return to Meltzoff's paradigm. Meltzoff himself does not remark on the role of common-cause reasoning in his paradigm. If we ask how Meltzoff sees his data as bearing on our use of psychological predicates, one part of the answer is this. He focuses on the role of imitating facial expressions in providing an understanding of other minds. His thesis is that there is an innate capacity to imitate expressions. He further remarks that there is some evidence that asking people to assume an expression leads them to have the associated emotion: making oneself look happy will lead to one's actually being happier, making oneself look grief-stricken will have the effect that one feels sad, and so on. So the hypothesis is that when the infant sees someone with a particular expression, he uses his innate capacity to imitate it, and this in turn leads to having the emotion in question, so the infant now knows what is going on in the other person (Meltzoff 1990b). Of course, this is not intended as a complete description of a mature understanding of other minds. Freud, for example, could presumably remain relatively impassive while achieving his insights. Even at the foundational level at which it operates, the model needs supplementing. There has to be some explanation of how one achieves a grasp of the causal roles of mental states—of how grief, for example, can interact with other mental states and with the circumstances to yield anger. And the model depends on, but does not explain, knowledge of one's own mental states. (This is not a complete review of Meltzoff's work on how imitation bears on understanding other minds. See also Gopnik and Meltzoff 1993; Gopnik, Slaughter, and Meltzoff, *in press*; and Meltzoff and Gopnik 1993.)

Much of the thrust of Meltzoff's work has been to insist on the cross-modal character of knowledge of one's own behavior and that of others. He suggests that the infant represents its own expressions in just the same way that it represents the expressions of others: it uses a cross-modal system of representation (Meltzoff 1990a, Meltzoff 1993). So the child has no problem about knowing how to match up its own expressions with those it wants to imitate. That is part of the reason why imitation is so primitive. It would, I think, be perfectly in keeping with this approach to propose that a child may use a cross-modal system of representation to represent its own expressions of mental states and the states of others. One can see the pleasure in another's face, one can tell that one is expressing pleasure oneself, and the expression of pleasure may be represented in just the same way both times. This would evidently involve the use of a body image, in

the sense explained above. This proposal, which, as I say, seems in tune with Meltzoff's own position, simply finesses the need for the kind of approach to other minds he suggests.

When we looked at Meltzoff's paradigm earlier, discussing the role it gave to the body image, no place was given to the infant's grasp of mental states: we considered only its conception of its own facial configurations as the common cause of a series of facial configurations by the imitating adult. But it would be possible to view the paradigm as significant because it is the prototype of an understanding of the relation between one's own mental states and the mental states of the other person. It could happen, for example, that the subject perceives the adult as experiencing pleasure over a period and finds a common cause for all this pleasure in his own pleasure. So common-cause reasoning at the level of physical properties can be echoed at the level of psychological properties. Of course, we are considering only the very simplest type of common-cause reasoning when we look at imitation over a period. While someone else might take pleasure in my pleasure, they might also be depressed by it or be bored by it or, to look on the bright side, take steps to prolong it. And there may be no single response: one's mental state may cause a whole complex of reactions in another. Nor is there any reason why one should be confined to the reactions of one other person, rather than a social group. I am not suggesting that there is much social sophistication in the infant. What I am proposing is that Meltzoff's paradigm matters because it is prototypical for an echoing, at the level of psychological properties, of the kind of common-cause reasoning that one engages in with physical objects. And this kind of common-cause reasoning is part of the foundation for the use of 'I' as a singular term. When we have this kind of reasoning as part of the conceptual role that one associates with the first person, we have moved away from any sort of thinking that can be expressed by Lichtenbergian formulations.

As I remarked earlier, we tend to think of the causal role of psychological states in wholly individualist terms. We think of how the mental states of a single person are produced by impacts upon that person and how they interact with one another ultimately to yield actions by that person. But a fundamental aspect of the causal role of the psychological state is its role in social interactions between people. In many cases this seems to be fundamental to understanding what the psychological states are. It is scarcely believable that an understanding of what are sometimes called the 'moral emotions', for example, could be complete without some understanding of their social dimension—an understanding of how one's pride or shame, one's contempt or affection, could have an impact upon other people. Of course, this social dimension to causal roles may supervene

upon the individualist dimension, in that if all the causal roles of various psychological states within individuals are given, this fixes the social dimension of their causal roles. One can acknowledge this while still holding that grasp of the social role of a psychological state is fundamental to understanding what is the psychological state, that one does not derive this grasp of social role from knowledge of an individualistically specified causal role.

Grasp of the social dimension of the causal role of one's psychological states seems to be part of possession of the conception of oneself as a concrete object; it has to do with the way in which one grasps one's own causal structure. As made apparent by Meltzoff's paradigm, which pinpoints a prototype of this grasp of one's own causal structure in recognition of imitation, there is a place for the body image in this understanding of one's own causal structure. It is through use of one's body image that one grasps just how one's psychological states are affecting other people. This seems to be a fundamental role for the body image in self-consciousness.

When one thinks of one's psychological properties as common causes of psychological reactions in other people, it is not just that one thinks of one's own psychological states as producing other instantiations of psychological properties; one thinks of them as the reactions of other people. So one is sensitive not just to the production of psychological reactions but also to the identities of the people in whom these reactions are produced. For this reason, an understanding of 'I am *F*' depends upon an understanding of 'He is *F*'. Indeed, it will also depend on understanding other people's uses of 'I'. One will have to understand that they think of themselves as concrete objects in just the same way that one thinks of oneself as a concrete object. One will need to have the idea that they use 'I' as something governed by just the same token-reflexive rule that governs one's own uses of the first person, if one is, for example, to grasp the many and complex ways in which one's emotional reactions may affect them.

This remark meshes with recent work by Meltzoff and Moore, in which the very same behavioral repertoire considered in the experiments described above turns out to be used not just in infant imitation, or recognition of imitation, but also to test the identity of the person who is interacting with the infant. Having been faced for some time with an adult making a particular type of face at it and then after a gap, finding another human in the same place, the infant will first make the same old faces, no matter what particular expression the new adult has. The hypothesis is irresistible that the infant is testing whether this is the same person as before

(Meltzoff and Moore 1994). If this is correct, then the prototypes of the conceptual skills I am describing do indeed develop together. Grasp of one's own causal structure has the same imitative capacity as its prototype but that imitative capacity is also the prototype of the ability to grasp the social significance of sameness of person, to live in the world of real people.

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