

S. Mumford (1998). *Dispositions*. Oxford University Press.

5 Property Dualism

5.1 *Irreducibility as an Ontological Thesis*

In the last two chapters I was concerned with the conceptual distinction between the dispositional and categorical. I attempted to reinforce the notion of disposition ascription being a distinct class of property ascription distinguishable from other sorts of property ascription and event description. Dispositions are best understood as properties functionally characterized and they can be contrasted with either events or any property that is not functionally characterized.

With the present chapter the discussion turns away from the conceptual problems. I shift the focus onto the ontological problems that the legitimizing of disposition ascription brings. By looking at the thesis I have called property dualism, I aim to raise problems that will occupy me until Chapter 10.

The most pressing of these problems, that raises itself instantly, concerns whether the world is really composed of two distinct properties: the dispositional and the categorical. Unlike many previous combatants in the debate, I distinguish this as a specific and significant ontological claim because I want to bring into sharper focus the issue of whether we should say that there are separate dispositional and categorical properties at work when a disposition manifestation is produced. In distinguishing such a position I need to go beyond the classificatory division of ontological positions that was introduced by Mackie: the division of theories into phenomenalism, realism, and rationalism.¹ Mackie's taxonomy of theories is, I contend blind to an important issue that divides adherents to those positions. Mackie is not alone in being insensitive to this issue and at least one author whom I accuse of being a property dualist² has objected that I am forcing him into a pigeon-hole and that in some cases he takes a monist stance though a dualist one in others. The division I make between dualist and monist theories is, however, nothing more than the analogue of the dualism-monism division in respect of the mind-body relationship. If any writer claimed that on this issue they were a dualist in some cases and a monist in others, then we would reply that if they were a dualist in any instance, they are dualist overall, for they allow the possibility of two distinct of at least one substance (property, event) from an ontologically distinct category. The same must be said in the case of the dispositional and non-dispositional: if the existence of two distinct and irreducible kinds of property is allowed, then a theory that allows it is a dualist theory.

How does a thesis of property dualism arise? Given the establishment of a conceptual distinction between the dispositional and the categorical, then the prospect of a similar division in ontology arises quite naturally, though it could not have done so otherwise. What has been shown in the last chapter is that disposition ascriptions are conceptually irreducible and only because of this can the possibility be entertained that such irreducibility exists in ontology as well. [...]

My concern in this chapter will be to examine the arguments that have been put forward for property dualism as an ontological thesis. [...]

However, after stating the arguments, and conceding the force of some of them, I will show why I think that a serious dualism of properties is a position we are motivated to argue against. [...]

5.2 *The Dualist Claim*

¹ *Truth, Probability and Paradox*, 121 ff.

² Ullin Place, in correspondence.

The dualist claim is that there are distinct disposition and categorical properties inhabiting the world in the same way that dualists in respect of other types of property may argue that there are distinct mental and physical properties or distinct temporal and non-temporal properties.³ Given that the division between dispositional and categorical ascriptions has been sustained, is it not a natural move to say that disposition ascriptions are true in virtue of the presence of dispositional properties and categorical ascriptions are true in virtue of the presence of distinct categorical properties? The dualist is thus claiming that there is a fundamental bifurcation of reality and that to have a dispositional property is a different sort of thing, in some substantial way, from having a categorical property. In respect of objects and substances, the dualist position urges that in addition to a thing's categorical properties, such as shape, texture, and microstructure, it also has a set of dispositional properties that are a different type of property to categorical properties and that in some way account for the thing's behaviour. There is a claim of some real division in reality here: it is not merely that there are two ways of talking about a thing's properties; there are, rather, two different types of property that we can talk about.

This is a position which I am going to argue against. [...] I am taking potentialities and causal characteristics, along with other categories such as powers, abilities, tendencies, and propensities, to be dispositions. Subtle distinctions may be possible but the account of dispositions I develop is general enough to cover all these items.

Three more substantial aspects of the dualist position need to be brought into focus:

1. *Causal and categorical bases*

The notion of a causal, microstructural, or categorical base needs to be explained. What is usually meant by such a thing is something like the following. For any disposition possessed by an object or substance, there is, as a matter of empirical fact, or it is inductively probable that there is, some property that we might think of as the base property or basis of that disposition. The basis b , of any disposition d , is generally understood to be that property, or property-complex, in virtue of which the object or substance had d . Armstrong expresses this point in terms of b being the 'truthmaker' maker of an ascription of d . It is frequently made in terms of b being the explanation of d .

[...] Typically, the dualist makes the claim that the basis of a disposition is non-dispositional, however: it is substantially a different sort of property altogether. Place refers to the basis as microstructural. An example of such a basis would be the molecular structure of sugar which explains why it is soluble. Some bases of dispositions may well be macrostructural properties, though, as in the case of the base property for the disposition of a ball to roll in a straight line when hit, which can be explained in terms of its shape and centre of gravity. [...] there is the general way of referring to such bases as 'categorical bases' of dispositions. [...]

2. *The denial of identity*

One thing I take to be a necessary condition for a dualist position is the denial of identity between the disposition d and its base property b . Such a denial of identity is not sufficient for dualism, however, because Mellor denies the identity of a disposition and its base but still has a property-monistic ontology: all bases, as he understands them, are dispositional.

It will be seen that one of the major erroneous assumptions in the debate, to date, is that the question of identity is the only question we must answer to decide between dualism and monism. Something else is required for dualism: the acceptance of different categories of property. Mellor

³ An example of a temporal property would be being 10 years old.

accepts only one category of property – the dispositional – with various dispositional properties standing in various explanatory relations to each other. However, a denial of identity between *different categories* of property is a more serious ontological matter that leads to the dualistic position I am describing. If the disposition and the base are of different classes of property and if identity between such classes is denied, then we have two ontologically distinct kinds of property. What a typical monist position is at pains to deny is that having a disposition and having an appropriate categorical base for that disposition is the having of two properties of fundamentally different kinds.

3. *The relationship between dispositions and their bases*

If dispositions are not identical with their bases, then what is the relationship they have to them? There must be some relation because the dualist has to provide some explanation of why it is property b_1 , rather than b_2 , that is the base of disposition d_i . Identity of b_1 and d_i would be one explanation but the dualist has ruled out the relation of identity.

One likely kind of relation that the dualist is to appeal to is a causal one. There are, however, two different ways in which the causal relation could hold:

[A] First, it could be thought that the categorical base of a property causes a particular to have a dispositional property which in turn causes that particular, in ideal conditions, to G , if F -ed. Something like this causal structure is argued, for instance, by Weisman¹⁰ and Place (see Sect. 5.5, below). The dualist in this case is arguing that once the categorical property has caused a particular to have a disposition, that disposition is then sufficient to cause manifestation events unaided by the categorical base.

[B] The second possibility is that the causal base of a disposition is itself the property which is sufficient for the production of the manifestation event in suitable circumstances. Thus, the disposition does not cause the disposition which in turn causes the manifestation: the categorical base cause the manifestation, in ideal conditions, directly. This is the causal structure that is advocated by Prior.

A causal relation is not the only possible one, however. There may be a supervenience claim where dispositions supervene on their categorical base. This would be explicated in traditional style as there being no change in a disposition of a thing without there being a change in its categorical properties and two particulars which are alike in all their categorical properties being alike in all their dispositional properties.

Hence the typical dualist position will be one where dispositions have a categorical bases which are distinct from, and of a different type of property from, their disposition but are related to their disposition(s) and in virtue of this relation some explanatory relation exists also.

[...]

5.5 *Place's Dualism*

Place argues what I take to be a dualist line and offers three reasons why dispositions are not identical with their microstructural bases. I will take these reasons one at a time and explain why we should accept none of them.

¹⁰ *Dispositional Properties*, 187. Weisman divides properties into static and dynamic real dispositions or potentialities being the latter, and then says that the static determine the dynamic.

(a) *Differences of category*

First, Place argues:

Two descriptions cannot be descriptions of one and the same thing if there is a difference of category between the kind of thing picked out by one description and that picked out by the other. In the case of the alleged identity between dispositional properties and their basis in the microstructure, both descriptions are descriptions of properties, but they are descriptions of properties of different kinds. Dispositional properties are modal properties, they consist in their possible future and past counterfactual manifestations. The microstructural properties of an entity on the other hand are categorical, which of course, is why Armstrong who finds modal properties offensive wants to reduce the dispositional to the microstructural.²³

This argument cannot be accepted because the description of the dispositions as modal properties, consisting in their possible future and past counterfactual manifestations, is not an acceptable one. Place's view of dispositions here is close to that of Ryle's, namely a conditional reductionist view of the kind I argued against in Chapter 3. Place himself admits that disposition ascriptions are categorical, in a sense, in that they ascribe actual properties. Because of this, however, the difference in category, in the way Place understands it, cannot be accepted. Dispositions are more than just 'modal properties'. A disposition consists in more than just its possible manifestations; it consists in the possession of a property or properties classified according to the functional role played by such property or properties. The full details of this alternative to the conditional analysis have yet to be presented but once they have been it will be clear that the difference of category objection fails to establish property dualism, being based upon a theory of dispositions that is discredited.

(b) *Differences in location*

Place next makes the claim that a disposition and its alleged categorical base cannot be identical because they have different locations. The microstructure is inside the entity, the disposition 'in so far as it is located anywhere, is outside the entity at its point of interaction with other things.'²⁴ We are given a 'most striking' example of a dispositional property that is located outside the entity which nevertheless possesses it: the magnetic field of an iron bar. Another case is that of opium's dormitive virtue, or *virtus dormitiva*, which manifests itself inside the organism that ingests it.

This argument would be unconvincing to a committed identity theorist, for it seems deniable without absurdity. The disposition, it is to be located, can simply be located wherever the categorical properties responsible for its manifestations are. Indeed, it seems that the opposite view has the greater absurdity. If the disposition is not to be located in the object itself, then in virtue of what does it belong to that object? One explanation why Place may think that the disposition is to be located outside the object is that he is susceptible to the mistake of conflating the manifestation of the disposition with the disposition itself. Is the *virtus dormitiva* of opium really to be located at the point where the opium interacts with the organism that has ingested it? The intuition that the opium would still have the disposition whether or not anyone had ingested it suggests not. This interaction between opium and organism is the event of the disposition manifesting itself; it is not the disposition itself, hence we should not look there for the location of the disposition. What of the most striking example: that of the magnetic field of an iron bar? That something is magnetic means that it has properties that occupy the functional role of attracting certain objects when they enter a certain close proximity. It must be properties within the object that occupy this role but how they do so is another matter. Our understanding is that a field is created that can capture other magnetic objects. If the magnetism is being ascribed to the field, then the disposition and those properties occupying that role, whatever they are, are to be located within the field. If the magnetism is being ascribed to the object, in virtue of creating a field, then the properties we are interested in are inside

²³ D. M. Armstrong, C. B. Martin, and U. T. Place, *Dispositions: A Debate* (London, 1996), 60.

²⁴ *Dispositions: A Debate*, 61.

the object. In either case, there seems no reason why we are obliged to locate the disposition and its base at different places.

On this issue it is also worth a passing comment on Place's proviso that he is concerned with the location of a disposition *in so far as it is located anywhere*. Place is evidently expressing a degree of scepticism that it makes sense to speak of dispositions having a location. This I take as evidence of further confusion resulting from the conditional analysis of dispositions. Disposition ascriptions are evidently being reduced to conditionals, rather than understood as properties; and certainly it is a category mistake to speak of a conditional or any other proposition, having a spatial location. Treating dispositions as properties that make conditionals true instantly dissolves the absurdity.

(c) *Differences in causal role*

Place's final argument is that dispositions and their bases occupy different causal roles and so, in virtue of this, cannot be identical. The aetiological structure Place supports is one where a categorical base causes the disposition and the disposition, in turn causes the manifestation (alternative [A] from Sect. 5.2). Although Place makes these claims in the context of a more fully worked out ontology, they are strange in a number of respects. One may well ask why it is not possible that a categorical property causes the disposition manifestation on its own, directly, instead of creating this separate dispositional property to do the job? Perhaps one response could be that only dispositional properties can cause their manifestations and categorical bases are causally impotent with respect to these.²⁵ But this is straightforwardly inconsistent with the claim that the categorical base causes the disposition because it means that the categorical property is capable of manifesting a disposition: a disposition to create a further disposition. Even more serious, perhaps, is the concern that this causal structure is an infinitely regressive one. In order to cause a particular disposition manifestation, on this story, a disposition must first be caused by the structure. In order to cause this, though, the structure must have a disposition to cause the disposition that causes the particular manifestation. To manifest this disposition must it first cause a disposition to do so? To do so it must first create another, and so on. It seems, therefore, that a categorical property can have no disposition unless it has an infinity of dispositions, which is a strong reason for thinking this aetiology is mistaken.

I will be promoting an alternative but it should be clear that independent consideration of this account of causal relations between dispositions and their bases shows that it is a highly problematic one. The alternative that I promote will be less problematic but it will be one where the categorical bases is a cause of the disposition manifestation (alternative [B] from Sect. 5.2). In fact, the categorical base will have the same causal role as the disposition, hence it will be of no use to Place as it directly contradicts the premiss of this argument for dualism.

In chapters to follow I will be considering the causal relations between dispositions, bases and laws of nature in more depth. For now I will pass on, noting that a convincing argument for the ontological distinctness of a disposition and its base is not to be found in Place's discussion.

²⁵ See Sect. 5.7: potentiality cannot be reduced to actuality.