

Dispositions and Meinongian Objects *

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Abstract. Questions concerning causal involvement of empirical properties have recently given rise to a lively philosophical controversy known as the debate about dispositions. I begin with a description of the focal points of the debate: the issue of the viability of the conditional analysis of dispositions, the question of whether or not they ultimately constitute a distinct kind of properties, the conundrum concerning their causal efficacy, and finally the bold suggestion that all properties are dispositional. Along the way I sketch current theories of the nature of dispositions. Then I draw a fuller picture of dispositionalism, i.e. of the family of positions united by embracing the ontological distinctness of dispositions and their causal efficacy. I conclude by defending dispositionalism against the objection, raised by David Armstrong, that it is committed to the existence of Meinongian objects.

Properties have been clear beneficiaries of the rapid growth of rigorous philosophical investigation over the past century. The major controversy concerning their nature, i.e. the debate about universals, has reached new levels of lucidity and sophistication, with original arguments emerging for the first time in quite a long while (for a survey, see Mellor, Oliver 1997). In addition, questions revolving around causal involvement of empirical properties have recently crystallised into a well-defined field of inquiry. Does the potential causal involvement of such properties go to the very heart of their nature? If so, is their nature exhausted by their potential causal contributions? Or, even more radically, are there any empirical properties which are adequately described regardless of the causal work they would perform? These are some of the questions at the centre of the debate about the status of dispositions.

1. The Debate about Dispositions

It is agreed on all hands that ascriptions of fragility, elasticity, electric charge and the like are often true. From this area of consensus the debate sprawls in various directions. The Rylean view (Ryle 1949, pp. 43f, 116–125) that true dispositional ascriptions do not capture any *bona fide* properties is a thing of the past, but almost everything else is a matter of contention. Before offering a defence of some aspects

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of what I consider the most promising account of dispositions, I will briefly sketch the major dimensions of the controversy.

1.1. IS THE CONDITIONAL ANALYSIS CORRECT?

Until fairly recently it was almost universally acknowledged that the so-called simple conditional analysis expresses a fundamental, albeit perhaps incomplete, truth about dispositions:

(SCA) An object has a disposition (is disposed) at time t to give response m to circumstances C if it were to be in circumstances C at time t , it would give response m .

Although nominally concerned with dispositional ascriptions, the simple analysis was a central plank of unabashedly metaphysical theories of dispositions, and it acquired a precise meaning in the context of the theses that surrounded it. For example, at the hands of E. Prior, R. Pargetter, and F. Jackson it concerned causally impotent dispositional properties (1982, p. 252). By contrast, dispositionalists like B. Ellis and C. Lierse (1994, pp. 36ff) regarded it as revealing a tenet of dispositions conceived of as properties capable of participating in bringing about their own manifestations.¹

Given its pivotal role, any serious challenge to the analysis translated into a threat to the theories which adopted it. A spectre of such a challenge was first released by C.B. Martin in the late 1950s and for decades existed in the shadowy world of the philosophical oral tradition (cf. Blackburn 1993, pp. 263f; Martin 1994, pp. 1f, 8), finally emerging in a published form in the mid-1990s (Martin 1994). Martin attacked the simple conditional analysis with an argument designed to show that it collapses in the so-called finkish situations. He first observed that sometimes the *activating conditions* (C) of a disposition are capable of making a variety of causal contributions. A reverse fink would combine with the conditions to drive the disposition out of existence, thus aborting the emergence of its *manifestation* (m). As a result, the left hand-side of the analysis would then be true (an object would have a disposition at t) whereas its right hand-side false (although the disposition would be in activating conditions at t , its manifestation would not emerge). For instance, the simple analysis of a wire's disposition of being live would fail if the wire were connected to a safety switch (or a reverse electro-fink). The switch turns off electrical current whenever

¹ Strictly speaking, Ellis and Lierse contend that a dispositional property entails a number of counterfactuals of the kind employed on the right hand-side of the simple conditional analysis.

the activating conditions of the disposition arrive, i.e. whenever the wire is touched by a conductor. So, even though the wire were live at time t , we would not assert the right-hand side of the simple conditional analysis of the disposition, i.e. the proposition that if the wire were stroked by a conductor at t , electrical current would flow from it to the conductor (Martin 1994, pp. 2ff).

The finks' attempt to derail the simple conditional analysis was soon joined by the so-called maskers. The finkish situation sketched above poses a problem for the analysis because it annihilates a disposition at the crucial time when it should contribute to the production of its manifestation. By contrast, when a disposition is masked, its manifestation fails to materialise despite the disposition's continued existence in its activating conditions (Bird 1998, p. 228; Johnston 1992, p. 233).² A masker joins with some constituents of the conditions to produce an event different from the manifestation of the disposition, thus preventing the constituents from performing their job in bringing about the manifestation (Johnston 1992, p. 233). For example, methanol has the disposition to cause blindness or even death if ingested, but the disposition is masked, or its manifestation prevented from occurring, if an antidote is administered in time. In such a case the left-hand side of the simple conditional analysis is true, but its right-hand side false. Due to the influence of the masking antidote, the disposition's manifestation does not emerge even though its activating conditions obtain (i.e. its bearer is ingested). Moreover, when the antidote enters one's organism, methanol does not lose its lethal disposition: it would eagerly resume its destructive pursuits as soon as the antidote were removed (Ekins 1985; cf. Proctor, Hughes, Fischman 1988, pp. 320f). In a sense, then, a masker allows a disposition to remain to witness its own impotence.

The most cogent response to the threat posed by finkish cases has been put forward by David Lewis. Conceding that the simple analysis must be sacrificed, he maintains that its spirit can be salvaged by exploiting the observation that an object's possession of a disposition is a matter of the properties it has in the actual world. Thus, whether a thing has a disposition does not depend on how it would behave at the closest possible world where the activating conditions of the disposition obtain. It depends on whether it has a property which would be involved in causing the disposition's manifestation at the closest world where *both* the conditions exist and the property is retained. This idea is enshrined in the so-called reformed conditional analysis:

² Bird employs the word "antidote" to denote what, following Johnston, I call a "masker".

(RCA) An object has a disposition at time t to give response m to circumstances C iff it has (intrinsic) property B , and if it were to be in circumstances C at time t and retained B , then B and C would produce event m (Lewis 1997, p. 157).³

The intrinsic property of an object which, if retained, joins forces with a disposition's activating conditions to produce its manifestation is called a causal base of the disposition. Thus, the reformed analysis boils down to the proposition that to have a disposition is to have its causal base as described in the *analysans*.⁴ (A causal base of a disposition is often defined more loosely as the property of the bearer of the disposition which, in combination with the disposition's activating conditions, is responsible for bringing about its manifestation (Prior 1985, p. 2; Malzkorn 2000, p. 460). In contexts other than the present discussion of Lewis's analysis, I will employ the more relaxed concept of causal base).

When applied to the live wire connected to a safety switch, the reformed analysis does not yield the disastrous verdict that it is dead. The analysis focuses on the question whether the wire has a (perhaps complex) property such that at the closest possible world at which both the property is retained and the wire is touched by the conductor the property makes electricity flow to the conductor. Now, since an intervention of a safety switch drives out of existence exactly a property of this kind, the property would not be retained at possible worlds where the switch operates. This is why, if the wire is connected to the switch in the actual world, the manifestation of the disposition of being live does not emerge at the closest possible world at which the wire is touched by a conductor. And this is also why the reformed analysis is indifferent to what happens at that world.

In a finkish case the unholy alliance of a fink and the activating conditions of a disposition drive out of existence the property which would otherwise join forces with the conditions to produce the disposition's manifestation. As just noted, Lewis's analysis takes care of this scenario by suggesting that in deciding whether an object has a disposition we should focus on the closest possible world where the conditions obtain and the property is retained. When a disposition is masked, however, an interfering factor does not touch the property responsible for the display of the disposition—it merely engages some of the disposition's activating conditions, preventing them from getting

³ I have simplified Lewis's analysis, primarily by omitting some references to time.

⁴ Like some other versions of the conditional analysis, the reformed one leaves open the question of whether or not a disposition is identical with its base (cf. Lewis 1997, pp. 151f).

involved in causing its manifestation. Since the masking cases do not involve the fading away of a causal base, Lewis's modification does not even address them, and thus it should be no surprise that it has little prospect of providing a shield against the problem of masking (Bird 1998, p. 228).

There are two general lines of response to this predicament. Some metaphysicians have suggested different modifications of the simple analysis (Bird 2004b).⁵ Others have tried to capture the nature of dispositions (or, in some cases, just of dispositional predicates) by discerning and elevating their other features (Molnar 2003, pp. 60–98, 141). In what follows I will proceed on the premise, shared by most philosophers working on dispositions, that some version of the conditional analysis is correct. But the reader should keep in mind that many of the theses considered below may be adopted, *mutatis mutandis*, by someone who adheres to a competing characterisation of the fundamental tenets of dispositions. For example, George Molnar's account, which emphatically rejects the conditional analysis, effortlessly incorporates some of the theses.

1.2. DOES THE CONDITIONAL ANALYSIS CONCERN *Sui Generis* DISPOSITIONAL PROPERTIES?

Gilbert Ryle is usually interpreted as maintaining that dispositional ascriptions are not true in virtue of any property of the objects which they concern. According to Ryle's phenomenalism about dispositions, there is nothing more to having a disposition than being referred to in a true counterfactual of the kind employed on the right hand-side of the conditional analysis. Thus, having embraced the simple conditional analysis, Ryle agrees that for a glass to be fragile is to be such that it would break if dropped. He denies, however, that this requires the presence of any property of the glass which is responsible for bringing about this shattering effect. It may be the case that the counterfactual is satisfied by only one of two objects identical with respect to their causally relevant properties (Ryle 1949, pp. 43f, 116–125; cf. Armstrong 1968, pp. 86f; Prior 1985, pp. 30ff; Mumford 1998, pp. 26–30). This theory of dispositions became a target of much criticism in the late 1960s and early 1970s, and it is safe to say that it has been entirely abandoned (Armstrong 1968, pp. 86–88; Armstrong 1969, pp. 23f, Mellor 1974). But its demise has not resulted in a universal recognition of dispositions as a separate kind of properties. It has been sometimes maintained—notably by John Mackie and David Armstrong—that there are only categorical (or non-dispositional) properties.

⁵ J. Hauska, "Dispositions Unmasked", manuscript, 2005.

Does *categoricalism*, as Mackie and Armstrong's theory is called, recognise anything which deserves the name of a disposition? Armstrong gives an explicit affirmative answer: brittleness is "the 'categorical base', the microstructure, but it is this property of the object picked out not via its intrinsic nature, but rather *via* its causal role in bringing about the manifestation" (Armstrong, Martin, Place 1996, p. 39).⁶ Thus, the categorical property (plus the laws of nature which govern its behaviour)⁷ is the causal base of a disposition. But, in a bold move, Armstrong regards the base as identical with 'its' disposition defined by means of the conditional analysis. Dispositions and their categorical causal bases are not slightly uncomfortable bedfellows: they are one and the same property accessed by different epistemic routes. In other words, there are only categorical properties and to describe them in dispositional terms is no more than to indicate the character of their causal involvement. So, the truth of many dispositional ascriptions is not denied, but accounted for exclusively in terms of categorical properties (Armstrong, Martin, Place 1996, pp. 16–18, 37–41; Armstrong 1997, pp. 72f, 80–83; Mackie 1973, ch. 4; for criticism, see Heil 2003, pp. 90–96).

1.3. ARE DISPOSITIONAL PROPERTIES CAUSALLY EFFICACIOUS?

If, *contra* Mackie and Armstrong, one regards dispositions as distinct properties, then one faces the further question of whether they are involved in bringing about their manifestations. Two positions struggle for superiority here. On the one hand, it is often maintained that dispositions themselves are causally impotent, and the job of producing their manifestations is jointly shared by their activating conditions and some closely associated properties. The properties would then serve as distinct causal bases of the dispositions. According to this view, it would not be fragility itself, but the molecular structure of a fragile object which would join forces with a moderately strong strike to cause fragility's manifestation, or the object's shattering (Prior, Pargetter, Jackson 1982). Until fairly recently, this view, sometimes imprecisely called *dualism* (Mumford 1998, p. 18; Molnar 2003, p. 149),⁸ was dominant among metaphysicians working on dispositions, and may still be so among philosophers at large.

⁶ Cf. Mackie (1973, ch. 4) where he distinguishes between dispositional and categorical descriptions of the same categorical property.

⁷ Laws are understood here as ontological grounds of true nomic statements. At a first approximation, Armstrong regards them as relations between universals (cf. Armstrong 1983).

⁸ A better name would be, for example, categorical foundationalism.

On the other hand, a growing number of metaphysicians hold that dispositions are identical with their causal bases and are *ipso facto* involved in producing their own manifestations. An allegedly major difficulty for this view arises in connection with the modal status of causal relations. There is no dispute that if a disposition is involved in bringing about its own manifestation, then one has to accept the metaphysical necessity (or truth at every possible world) of the causal nexus. The conditional analysis defines dispositions in terms of their activating conditions and manifestations. This is to say that the analysis has to grant that a disposition has the same activating conditions and the same manifestation at every possible world at which it exists. It follows that if a disposition were identical with its causal base, then, together with its activating conditions, it would cause the same event at each world where it would be displayed. This means that the causal relation between the disposition (*cum* its activating conditions) and its manifestation would be metaphysically necessary, which, in the eyes of critics influenced by Hume's argument against necessary connections between distinct existences, amounts to a grave offence against philosophical decency (Mackie 1973, p. 139).

Responding to this objection, supporters of direct involvement of dispositions usually focus on challenging the cogency of Hume's argument, but sometimes go a step further and attempt to provide examples of necessary connections between distinct events. Absolving in this way the strong necessity of causal relations from any flaw, they feel free to contend that dispositions play a crucial role in producing their own manifestations (cf. Molnar 2003, pp. 181–198).⁹

Once it is accepted that dispositions are involved in bringing about their own manifestations, it is natural to maintain that there is not much more to them. The thesis that the nature of a disposition consists in its potential to co-cause its own manifestation is a core commitment of the so-called *dispositionalism*.¹⁰ For example, a dispositionalist who accepts the conditional analysis would claim that what the analysis in fact does (or ought to do if properly formulated) is spell out the causal potential of a disposition, i.e. its readiness to join with its activating conditions to cause its manifestation.

⁹ For a discussion of other arguments against direct causal involvement of dispositions, see J. McKittrick (2003).

¹⁰ Molnar, whose version of dispositionalism has not been worked out in full detail, is an exception here. Since he intends to define causation in terms of dispositions, he cannot appeal to causation in defining dispositions (2003, pp. 141). The ambitious goal of employing dispositions to throw light on causation is shared by Martin (Armstrong, Martin, Place 1996, pp. 135f).

1.4. ARE THERE ANY NON-DISPOSITIONAL PROPERTIES?

One of the issues defining the debate about dispositions concerns the very distinction between the dispositional and the categorical. If one adopts the conditional analysis, then it is natural to regard it as enshrining the criterion of dispositionality: unlike their categorical cousins, dispositions are supposed to satisfy the counterfactual at its heart. It has been noticed, however, that even paradigmatically categorical properties such as shape entail the relevant counterfactuals (Mellor 1974, p. 171), which has immensely worried some friends of categoricity (Prior 1982, pp. 93–96, cf. Mellor 1982, pp. 96–97). They have set off in search of a criterion which would “save the appearances” by describing a large group of properties as categorical (Mumford 1998, pp. 73–78; Cross 2005). Whether they succeed here is a matter of dispute. What is beyond doubt, however, is that dispositionalists are not discouraged if their characterisation of the dispositional implies that the world does not sport much categoricity (Bird 2003). Many versions of dispositionalism recognise the existence of categorical properties but even they invariably regard a huge majority of the properties of physical objects as dispositions and often consign the categorical to ontological margins of one sort or another (Ellis 2001, pp. 135–138; Molnar 2003, pp. 158–162).

Perhaps surprisingly, categoricism, dispositionalism, and the dualist position advocated by Prior, Pargetter, and Jackson do not exhaust the spectrum of views on what kinds of properties constitute reality. For a while Martin was taken to be an advocate of the thesis that no property is purely dispositional or purely categorical, but each one has both a dispositional and a categorical “side” or “pole” (Armstrong, Martin, Place 1996, pp. 71–75). It turned out, however, that in spite of being the focus of much criticism (Armstrong, Martin Place 1996, pp. 95–98), this thesis cannot point to anyone who would acknowledge authoring it. On its intended interpretation, Martin’s position (called *identity theory*, Heil 2003, p. 111) is defined by the claim that all properties are both dispositional and categorical, since dispositionality and categoricity are identical. One consequence of embracing such an identity is a rejection of all characterisations of the dispositional which are intended to set it apart from the categorical. It is no surprise, then, that—as already noted—Martin is among the harshest critics of the conditional analysis. Finally, it has also been maintained that the distinction between the categorical and the dispositional pertains to predicates rather than to properties. On this view, sometimes called

neutral monism, properties are neither dispositional nor categorical (Mumford 1998, esp. pp. 144–169; Mellor 2000).¹¹

2. Dispositionalism: A Closer Look

As often in philosophy, the debate about dispositions is a ragged battlefield of repeatedly undertaken attacks, fiercely defended positions, occasional tactical movements, and exceptionally rare arrivals of forces devoted to a novel cause. To be sure, some positions (e.g. early attempts to analyse dispositional ascriptions in terms of material implication, see, e.g. Carnap 1953, pp. 52–53; Storer 1951) are entirely deserted, and merely evoke memories of past blunders. But other ones are still able to recruit supporters and their veterans rarely change sides. Despite the doggedness of the debate, it appears that some theories have been gaining ground. For example, neutral monism was not even explicitly formulated twenty years ago, but has a number of serious supporters today. A similar point is true of dispositionalism. Although its adherents have been tracked down to as long ago as the 18th century (Boscovich 1966; see also Plato, *Sophist*, 247E), the theory does not appear to have had significant defenders from that time till the 1950s (Popper 1957). The remainder of this essay will be devoted to a somewhat more detailed exposition of dispositionalism and to a defence of it against a major objection.

2.1. DISPOSITIONALIST ATTRACTION

As noted above, at the heart of dispositionalism lies the proposition that dispositions do not have distinct causal bases—they are supposed to be directly involved in bringing about their manifestations. It follows, among other things, that no involvement of categorical properties is required for the emergence of manifestations. This leads to the other defining tenet of dispositionalism—its reluctance to acknowledge categorical properties. In its radical form, dispositionalism denies the existence of any categorical properties; its moderate versions allow some such properties.

What is the evidence for the twin theses of dispositionalism? Interestingly, the same train of thought leads to both of them. Adherents of the theory contend that categorical properties are so elusive that one is forced to conclude that, perhaps with some extremely rare exceptions, there is no reason for accepting their existence. Consider the claim,

¹¹ Of course, here the identity theory and neutral monism are different from eponymous doctrines in philosophy of mind.

made by those who think that dispositions have categorical causal bases, that fragility's causal base is the bonds between the molecules constituting its bearer. Are the bonds really a (complex) categorical property? Certainly, the answer is not a resounding yes. On the contrary, molecules are bonded just in case they *would* "stick together" *if* acted upon with an appropriately specified force. At least for those who embrace the conditional analysis, this is a clear sign of the dispositional nature of inter-molecular bonds. Moreover, molecules are bonded together by virtue of some of their electrostatic properties (for example, by virtue of being ionised), which are determined by the electrostatic properties of their constituent atoms, which in turn are determined by the electrostatic properties of their subatomic particles, and so on "all the way down". Are any of these properties promising candidates for wearing the mantle of categoricity? Again, it does not seem so. This is not surprising given that even the most fundamental properties that physics has so far managed to uncover strike us as dispositional. The nature of such properties as electric charge, gravitational mass, etc. appears to be "exhausted by their dispositionality:" "what these properties *are* is exhausted by what they have a *potential for doing* both when they are doing it and when they are not" (Molnar 2003, pp. 135f).

Of course, the opponents of dispositionalism may still harbour the hope that we will hit upon categorical properties when we dig deeper into the foundations of reality. But there are reasons for thinking that the properties of such particles as leptons and quarks constitute the innermost frontier of matter. Quarks and leptons have revealed no parts despite being bombarded with projectiles whose energy reached a level about *hundred thousand* times greater than that at which, were past experiments any guide, their structure should have come to light. This is true even of the recently discovered huge top quark, the mass of which is comparable with that of an atom of gold and about forty times greater than that of the next most massive fundamental particle (the bottom quark). Since quarks and leptons do not seem to have parts, there is no rationale for holding that these parts have any properties that are able to play the role of causal bases of the particles' dispositions. Moreover, the particles themselves (rather than their alleged parts) do not have any properties which could be the causal bases (Molnar 1999, pp. 4, 8ff; Molnar 2003, pp. 133f). Thus, the prospects of the proposition that that bearers of dispositions have properties which serve as the dispositions' categorical causal bases appear bleak. (It has also been compellingly argued that the supposed categorical bases of fundamental dispositions are unlikely to reside in "observable properties of the universe", see Molnar 2003, pp. 134f).

2.2. DISPOSITIONALIST WEAKNESS?

Dispositionalism would be the uncontested champion of the debate if its story ended here. Unfortunately, it does not: what remains to be mentioned is the more problematic side of the theory. Both the radical and the moderate versions of it have been accused of having a number of unpalatable ramifications.

Vacuous explanations. Some metaphysicians have contended that dispositionalism legitimises clearly inadequate explanations like the one, ridiculed by Molière,¹² which answers the question of why opium makes one asleep by pointing to its dormitive virtue, or the power (disposition) to make one fall asleep. The critics' point is that dispositions are clearly ill-suited for being cited in explanations, while dispositionalism implies that explanations cannot but invoke dispositions (Armstrong 1973, p. 16; Mackie 1977, p. 104). In defence of the legitimacy of explanations invoking dispositional properties, it has been argued that, when carefully constructed (a condition not satisfied by Argan's brilliant effort), such explanations are not vacuous at all. For example, it would not be trivial to respond to Molière's question by citing the disposition of morphine (the main soporific ingredient of opium) whose activation sets off the chain of bio-chemical events resulting in falling asleep.¹³

Causal efficacy of macroscopic dispositions. Since dispositionalism maintains that it is dispositions themselves (and not distinct properties serving as their causal bases) which are involved in bringing about their manifestations, it seems committed to the thesis that macroscopic dispositions such as a vase's fragility are causally efficacious. This runs counter to the intuition that it is properties of the microscopic parts of a fragile object, i.e. of its atoms or molecules, which are responsible for its breaking when struck with moderate force. Of course, dispositionalism cannot postulate a categorical causal base for fragility. Nor does it seem defensible to maintain that the causal base of a disposition is another disposition. A strategy which offers here a prospect of success consists in showing that, rather than being "over and above" the microscopic properties, fragility is a structural (complex) property constituted by them.

¹² *Argan*: Mihi a docto doctore/ Domandatur causam et rationem why/ Does opium facit dormire? To which I respondeo:/ Because est in eo/ Virtus dormitiva./ Cujus est natura/ Sensus assoupire.

Chorus: Bene, bene, bene, bene respondere (Molière, "The Hipochondriac", trans. by J. Wood, in Molière, *The Miser and Other Plays*, J. Wood, D. Coward (eds.), London: Penguin Books 2000, pp. 294f).

¹³ Cf. Mumford 1998, ch. 6, esp. pp. 128–138. E. Sober (1982) grants that Argan's explanation is "fatuous and complacent", but denies that it is trivial.

Nomic necessity. Closely related to the aforementioned charge that causal efficacy of dispositions themselves implies metaphysical necessity of causal relations is the claim that dispositionalism is committed to a similarly strong necessity of laws of nature. The claim is quite natural given that nomic statements are often supposed to mirror causal relations (cf. Mumford 1998, pp. 216f, 236f). But, goes the accusation, it is clear that laws of nature are less than metaphysically necessary: we can easily imagine worlds constituted by the same properties as ours, yet governed by different laws (Armstrong 1983, p. 158).

In response, dispositionalists tend to take a page from Kripke (1980), pointing out that from the fact that laws of nature are discovered *a posteriori* it does not follow that they are contingent, and challenging the reliability of our untutored modal intuitions (Bird 2004a, pp. 1–18, esp. 11f). It has also been argued for the strong necessity of laws of nature in a manner which purports to avoid the presupposition that dispositionalism is true (Bird 2001; cf. Fales 1990, ch. 4).

In addition to these objections, the radical version of dispositionalism faces a number of further challenges.

The Swinburne problem. At the heart of radical dispositionalism lies the contention that the nature of a disposition (and thus of each empirical property) is exhausted by its ability to produce, together with its activating conditions, an appropriate manifestation. This means that a disposition is in part defined by the manifestation it would produce in certain conditions. Since the manifestation amounts to an arrival of a new property, its character is determined by the property. As a consequence, the nature of a disposition is to a large extent defined by the property involved in its manifestation. Now, if all empirical properties were dispositional, then so would be the property at the centre of the manifestation of a disposition. Thus, the nature of *this* property would be largely defined by the manifestation to which *it* would give rise in certain circumstances. Of course, the same would be true of the property crucially involved in the latter manifestation. This means, goes the objection, that the nature of the initial disposition would be captured only if the series of manifestations which it would set off reached an end. However, there is no prospect of such a peaceful termination: the disposition at the heart of each manifestation would have in turn to be defined in terms of the property involved in its manifestation, which would make the series infinite.¹⁴

¹⁴ The difficulty has been raised by many authors, e.g. K. Campbell (1976, pp. 93f), R. Swinburne (1980, pp. 315ff), H. Robinson (1982, ch. 9), and S. Blackburn (1993b).

The problem is made vivid when one keeps in mind that a disposition's manifestation is to be displayed in a counterfactual situation, and then analyses

This difficulty has been addressed by a number of metaphysicians. Some of them contend that there is enough categoricity to stop the regress, which means that they express a preference for a moderate version of dispositionalism. Properties such as locations in space-time, shapes, distances, and geometrical features of the space-time itself have been all invoked in this connection (Ellis 2001, pp. 135–138). Others argue that we can make sense of a world constituted exclusively by dispositions (Holton 1999).

Circularity. If there were only dispositions, then the activating condition of disposition d_1 , be it an event or a state of affairs, would be determined by another disposition, d_2 . And since the activating condition is supposed to join with d_1 to produce its manifestation, d_2 would partner in doing this, i.e. d_1 and d_2 would jointly bring about the manifestation. But what would be the nature of d_2 ? A crucial component of *its* activating condition would be d_1 , and its manifestation would be the same as the manifestation of d_1 . So, it is hard to escape the conclusion that radical dispositionalism defines d_1 by appeal to d_2 and *vice versa*, which is objectionably circular.¹⁵

Obviously, some of the challenges pose a graver threat for dispositionalism than the other ones. In particular, the Swinburne problem (and perhaps also that of circularity) is likely to decide its fate. As just noted, in an effort to stop the Swinburnean regress, many dispositionalists recognise some categorical properties. But even if such a recognition has a stronger rationale than the mere need to patch a theoretical hole, it is far from obvious whether the categorical properties succeed in putting an end to the regress. If not, then moderate versions of dispositionalism are in the same unenviable predicament as their radical cousin. In comparison with the Swinburne problem, the difficulties concerning vacuous explanations and nomic necessity have been dealt with quite satisfactorily, and the difficulty concerning macroscopic causation seems quite tractable. In the next section I hope to show that dispositionalism can also overcome the charge (not yet mentioned) that it is committed to Meinongian objects.

counterfactuals in terms of the closest possible worlds: “To conceive of all the truths about a world as dispositional is to suppose that a world is entirely described by what is true at neighbouring worlds. [...] [T]hese truths in turn vanish into truths about yet other neighbouring worlds, and the result is that there is no truth anywhere” (Blackburn 1993b, p. 257).

¹⁵ J. Hauska “Dispositionalism and Reciprocal Partners”, manuscript, read at the workshop *Dispositions and Causes*, University of Bristol, December 2005.

3. Does Dispositionalism Posit Meinongian Objects?

Uncontroversially, a displayed disposition is related to its manifestation. Whatever the exact nature of the relationship, it is beyond question that the manifestation is a full-blooded entity, and as such it is able to serve as a term of a relation (Armstrong 1999, p. 29). It is equally clear that a disposition can exist without being manifested: dispositions whose activating conditions are absent would, as it were, sit quietly, waiting for their turn (which may never come). For example, a fragile glass can come into being, persist without experiencing a strike, and finally be melted into a lump which lacks fragility. Needless to say, the manifestations of such undisplayed dispositions are not full-blooded entities: they do not even exist. However, argues David Armstrong, dispositionalism implies that dispositions necessitate their manifestations. The theory is therefore committed to positing relations between dispositions and non-existents. In other words, undisplayed dispositions would “make an essential reference to, in some way point toward” their non-existent manifestations. For Armstrong, it goes without saying that such close liaisons with Meinongian entities do not speak in favour of the view which implies them (Armstrong 1999, pp. 29f; Armstrong 1997, p. 79).

Armstrong maintains that the liaisons are especially worrisome for physicalists. The alleged directedness of dispositions toward their manifestations is reminiscent of the intentionality of the mental. Now, there is little doubt that mental states are directed upon objects, and that the objects “need not exist”. But if their intentionality is irreducible, that is, if it cannot be accounted for without positing non-existent objects, then physicalism is in trouble. Quite clearly, goes Armstrong’s argument, non-existent objects seem to pose a challenge to the physicalist thesis that everything that exists is “governed by nothing more than the laws of [complete] physics”. This is why physicalists devise elaborate arguments to the effect that the intentionality inherent in mental states can be ontologically reduced. But their efforts would fail miserably if *physical* things were made up of irreducibly intentional dispositions. Such intentionality would introduce physicalisticly troublesome entities by the backdoor (Armstrong 1997, pp. 6, 79).

As Armstrong observes, a disposition’s Meinongian relation to a nonexistent manifestation cannot be replaced by a “relation to existing manifestations elsewhere”. First, there is no guarantee that “all the required manifestations exist”. Second, and more important, such manifestations elsewhere would be irrelevant. Armstrong does not seem to provide a justification of this point (Armstrong 1999, pp. 29f), but there is a way of buttressing it. According to dispositionalism, a dis-

position is (at least) a potential co-cause of its manifestation (which means that it would contribute to producing the manifestation in its activating conditions). However, a merely qualitatively identical manifestation, having been brought about by ‘its own’ disposition, would not even potentially stand in a causal relation to the undisplayed one. To secure such a relation we would have to maintain that at some point the already existing manifestation is caused again, this time by the undisplayed disposition. To make matters worse, this peculiar form of overdetermination would have to hold for all unmanifested dispositions.

Yet, does the failure of the attempt to tame undisplayed dispositions by appeal to “manifestations elsewhere” imply that they are related to non-existent manifestations? Armstrong’s reason for claiming so seems to be the belief that, according to his opponents, a disposition necessitates its manifestation. Of course he is right in thinking that dispositionalism implies that a manifestation is necessitated. It is not, however, a disposition alone which is supposed to do the job: activating conditions are needed as the other part of a necessitating cause. Therefore, the existence of a disposition does not mean that it is accompanied by a shadowy presence of its manifestation, to which it is somehow related. All it means is that the disposition would be causally involved in producing the manifestation *were its activating circumstances to materialise*. In other words, since the manifestation of an undisplayed disposition does not exist, the disposition is not related to it. But they would stand in a full-blooded causal relation were the disposition’s activating conditions to hold. Thus, instead of postulating a mysterious relation to a nonexistent manifestation, dispositionalism defends a robust causal link in counterfactual situations. (The point may, perhaps, be made somewhat more perspicuously in terms of the possible worlds account of counterfactuals. While free from a commitment to a relation to nonexistent manifestation in the actual world, dispositionalism embraces a robust causal relation between a disposition and its manifestation in the closest possible world where its activating conditions hold. And because in such a world the manifestation enjoys the full privileges of existence, there is no metaphysical difficulty about its relation to a disposition).

This account of the directedness of dispositions has two relevant consequences. First, the kind of intentionality embraced by dispositionalism, if it indeed deserves to be called “intentionality”, seems different from the intentionality of the mental.¹⁶ *Prima facie*, an occurrent mental state is supposed to be related to its object “here and

¹⁶ C.B. Martin and K. Pfeifer (1986) argue that mental intentionality is different significantly from the physical one. This view is vigorously contested by Molnar (2003, pp. 60–81).

now". The case in which the object does not exist is no exception. It is thus incumbent on a non-Meinongian theory of mental intentionality to take this appearance into account and explain it away. But there is no good reason to think that dispositionalism implies that an undisplayed disposition is actually related to a nonexistent manifestation. (As just noted, Armstrong seems to have been led to think so by misreading the way in which a manifestation is necessitated). Since the directedness of dispositions is purely counterfactual, a dispositional property may happily occur without its manifestation being present in any way, shape or form. As a consequence, one does not need to explain away any nonexistent objects even if one maintains that dispositions are the basic building blocks of reality and that in a sense they are directed at their manifestations.

Second, since dispositionalism embraces only a very attenuated directedness of dispositions, there is no reason to think that Armstrong's categoricalism has an advantage here. To recall, he contends that dispositional statements are merely a manner of attributing purely categorical properties. Thus, it is a categorical property which, in tandem with activating circumstances and laws of nature, brings about the state of affairs considered a manifestation. What, on this view, happens if the property is not accompanied by full activating circumstances? Armstrong replies that

it can still regularly be inferred that if the full circumstances had been present at that time, then, because of the way the world works [i.e. the laws of nature], the [property] + circumstances would have [...] brought about [the] manifestation (1999, p. 30).

On the face of it, there is not much difference here between Armstrong's account and what I take to be the ramifications of dispositionalism. But one may argue that the agreement is only apparent. As just noted, dispositionalism is committed to a necessary relationship between a disposition and its activating conditions on the one hand and a manifestation on the other. In any possible world where the conditions obtain and the disposition is present, its manifestation will appear. Armstrong's own position does not entail such a strong relationship between a property and a state of affairs in the production of which the property is involved. The state of affairs would be brought about in accordance with laws of nature, and, in Armstrong's view, these do not hold in every possible world. Thus, a property would co-produce a specific state of affairs only in the possible worlds containing the same relevant laws of nature—in a nomologically distinct possible world it might be involved in causing a different state of affairs. So, unlike dispositionalism, Armstrong's view would not imply that the counterfactual direction of properties is their essential feature.

There is indeed a difference here, but does the difference matter with regard to the alleged relationship between undisplayed dispositions and their manifestations? I submit not. On Armstrong's theory, it is still the case that in many a counterfactual situation a property will be causally involved in producing an event. And the claim that the event can vary from world to world should not overshadow a more fundamental agreement between dispositionalism and categoricalism. Both theories deny that properties whose manifestations do not occur in the actual world are related to some nonexistent shadows of the manifestations. Both claim that such properties would be related to their manifestations only in counterfactual situations. Which is to say that, just as categoricalism, dispositionalism has no reason to fear merely possible manifestations.

* * *

The modern version of the debate about the nature of dispositions is fairly young. It seems a reasonable guess that it emerged at least in part in response to developments in physics and other areas of philosophy. Dispositions have been invoked in analyses of, for example, meaning (Kripke 1982), mind (various versions of behaviourism and functionalism), colour (McGinn 1983), value (Lewis 1989), and conditionals (Mellor 1993). It would not be surprising if, apart from owing its impetus to the intrinsic interest of its topic, the debate were fuelled by our other philosophical concerns for years to come.

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