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# Freedom and Dispositions

By Guus Labooy

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## 1 Introduction

This study aims at clearing up issues at the borders of philosophy, theology and neuroscience, in particular biological psychiatry. It offers a conceptual analysis of the notions of freedom and dispositions, and proposes nothing less than a solution to the age-old problem of how lawlike causal patterns and human freedom can coexist in any non-reductionist view of the relation between mind and matter. The author, Guus Labooy, has set himself the task of unravelling a host of notoriously difficult topics in the philosophy of science, such as the definition of determinism, the nature of causation, the character of natural laws, and many others. His main thesis is that causation and necessitation should be uncoupled. Unfortunately, Labooy does not take much space to discuss possible arguments against his position, whereas as we will see, his analysis certainly raises questions at some points. As far as I can see, he is the only one to have offered an analysis of lawlike causation in which the effect does not necessarily follow its cause. Although some authors (Anscombe, Ward, and in a sense also Mumford) have suggested ideas in this direction, no one seems to have worked it out in such detail as Labooy has done. In this review, I can only touch upon the central topics of the book, and critically discuss its main thesis.

## 2 Modality

After having introduced, in the first chapter, the main problems to be dealt with in the rest of the book, Labooy introduces the reader to the field of biological psychiatry in the second chapter. One of the conclusions of his analysis of the clinical, scientific and philosophical levels in psychiatry is, that, although the concept of a disposition is prominent at every level, it is not clear what dispositions exactly are. Another conclusion is, that the tension with the concept of freedom derives from the fact that they have, so far, only been analysed deterministically.

In order to overcome this, Labooy develops an 'open ontological framework', which consists mainly of a modern version of Duns Scotus' theory of synchronic contingency. Thus, the background logic of his study is essentially modal, and

the modalities are understood in terms of possible worlds:  $p$  is necessarily true in world  $W$  if and only if  $p$  is true in all worlds that are possible relative to  $W$ . In fact, Labooy freely chooses to use only the system S5, in which necessary truth boils down to truth in all possible worlds. He even rejects the notion of relative necessity and possibility, with a reference to the work of Alvin Plantinga. But in the passage indicated, Plantinga argues that S5 is the correct system for *logical* and *metaphysical* necessity, whereas Labooy is analysing cases of *nomological* necessity, for which S5 may not be the correct logic. Therefore, his a priori choice of only one modal system out of a whole family of modal logics is a bit awkward, and in my view unnecessary. It is like deciding to run a marathon, using only one leg. After having proposed to use haecceities to solve the problem of transworld identity, Labooy turns, in chapter 4, to the analysis of natural dispositions.

### 3 Dispositions

A disposition is a property that describes how an object would behave in certain circumstances. To say that sugar is soluble is to say that *if* a lump of sugar is thrown in a cup of tea, *then* it will dissolve. Labooy distinguishes natural dispositions such as solubility and fragility from act-dispositions such as ‘being a smoker’, which can only be ascribed to human beings, because the latter are intricately connected with the concepts of freedom and action. It is important to see that if we take the ‘if – then’ clause in the above description of solubility to be a mere material implication, anything counts as soluble if only it never happens to be thrown in a cup of tea (or placed in any other relevant circumstance). For this reason, some modal force is required to prevent that the above definition vacuously applies to clearly non-soluble objects.

After having argued against an extensional analysis of natural dispositions (a project on which logical positivism failed), Labooy discusses the ‘orthodox view’, which analyses them (after some modification) as follows:

(D1) An entity  $b$  in some possible world  $W$  has a natural disposition  $D$ , if (and only if) in every possible world  $W'$  that contains  $b$  and in which circumstances  $C$  obtains, the dispositional effect  $Y$  occurs for  $b$ , where some causal basis  $B$  is causally relevant to  $Y$ .

The latter clause is important, because dispositional effects have a cause, which has to do with other properties of  $b$ . In the example of solubility, the structural basis  $B$  would consist of the molecular structure of sugar, which is clearly causally relevant for its being soluble. Given that he notices the failure of logical positivism to analyse dispositions extensionally, it is remarkable that Labooy is completely silent on another problem that logical positivists could not solve: the problem of specifying the circumstances under which the dispositional effect turns up. It might be, for instance, that  $C$  contains circumstances that prevent  $Y$  from occurring. So which circumstances should be contained in  $C$  and which should not? In fact, this problem arises also for Labooy’s intensional analysis.

Note that the fact that the dispositional effect  $Y$  obtains in *every* world in which  $C$  obtains, implies that  $C$  *necessitates*  $Y$ . The question then is what sort of necessity is in play here. Labooy argues that it cannot be logical, or metaphysical necessity, because then it would no longer be an empirical matter whether an object  $b$  has disposition  $D$  or not, for dispositional properties would then be logically necessary properties! But Labooy also rejects an understanding of (D1) in terms of relative (nomological) necessity, according to which the effect obtains in all worlds with the same natural laws  $L$ , while there are other worlds in which these laws do not obtain. The reason is, says Labooy, that if some proposition is necessary relative to some class of worlds, then the axioms of the system S5 entail that it is necessary relative to every possible world. However, even given his choice for S5 as the background logic, this argument fails. The reason is that if we take ‘it is nomologically necessary that  $p$ ’ to mean ‘it is logically necessary that if  $L$  then  $p$ ’ (which is quite common among philosophers), then S5 is still the correct logic, but now  $L$  should be added to the conditioning clause in (D1) and it is no longer true that (D1) itself is true in all possible worlds, as Labooy claims. Maybe Labooy would reply that if we thus reduce nomological necessity to logical necessity, we can no longer invoke such necessities in our analysis of what a law of nature is. But it is not clear whether this is much of a problem, and Labooy doesn’t work out this line of thought. If I understand him correctly, this rejection of all possible interpretations of necessity is one argument against (D1).

A second objection is that if we construe dispositions along the lines of (D1), we can no longer, in physics and biology, distinguish coincidence from causality, because they would be deterministic (Labooy takes (D1) as a definition of determinism). In a deterministic theory, Labooy seems to think, it is impossible to make this distinction. He goes on by arguing that with such a deterministic understanding of dispositions, there is no reason why an extensional (truth-functional) analysis of dispositions should fail, and that it failed is an historical fact. This completes the *reductio ad absurdum* of determinism. Now it is true that in a deterministic theory, there are no coincidences, apart from the initial conditions, for given these, any two states of affairs are necessitated by the initial state of the system under study. But it is not clear how this proves that we could have construed dispositions without invoking modality at all.

It should be clear that according to Labooy, to avoid determinism, we must deny that the dispositional effect  $Y$  obtains in every world in which the circumstances  $C$  obtain. After having discussed some analyses of statistical dispositions, Labooy gives his own definition:

(D2) An entity  $b$  has a natural disposition  $D$  in world  $W$  if (and only if) in  $n$  possible worlds  $W'$  in which  $b$  exists and which satisfy  $C$ , there is coincidence with  $Y$ , and in  $m$  possible worlds  $W''$  in which  $b$  exists and which satisfy  $C$ , there is coincidence with  $\neg Y$ , where  $n \gg m$ . In addition, there is a causal basis  $B$  of  $b$  that is causally relevant for  $Y$ .

Labooy calls  $\neg Y$  the *dispositional alternative*. He claims that ‘[t]he essence of this analysis is that natural [...] dispositions are *contingent (and therefore*

*suspendable*), but *immutable*, and does not imply an exception-free scenario' (p. 146, his emphasis). I do not know what Labooy understands by the first claim, but I think it is false, for it follows directly from (D2) that if an object  $b$  has disposition  $D$ , then it has  $D$  in all worlds in which it exists. Therefore, dispositions are, by definition, essential properties. But the other claims are correct, and it is these features that make (D2) the crowbar by which Labooy opens up the seemingly closed physical domain, to make room for free will and Divine action. And how much room there is, is precisely captured by the value of  $m$ .

#### 4 Causation

In the definition of dispositions as given in (D2), it is assumed that the circumstances  $C$ , together with the causal structure  $B$  of  $b$  are the *cause* of the occurrence of  $Y$ . In chapter five, Labooy sets out to analyse the notion of causation. He does so in terms of necessary and sufficient conditions: a sufficient condition  $SC$  for the occurrence of an event  $E$  is a causally relevant circumstance in whose presence  $E$  *must* occur, and a necessary condition  $NC$  for  $E$  is a causally relevant circumstance without which  $E$  *cannot* occur. Two notions in these definitions need to be explained further, as Labooy recognizes: the notion of causal relevance, and that of 'must' and 'cannot'. I will focus on sufficient conditions here (the case of necessary conditions is analogous). Labooy argues that the mere necessity of  $E$  given  $SC$  is not sufficient for  $SC$  to have caused  $E$ , for then if  $SC$  necessitates  $E$ , so does  $SC \& D$ , where  $D$  is some totally irrelevant state of affairs. What we need is an explanation of the notion of causal relevance. For this, he proposes to use a primitive notion of 'derivativeness':  $E$  must *derive* from  $SC$  in order to have been caused by  $SC$ . In fact, he rejects the idea that necessitation is part of the concept of causation. This is reflected by his analysis of 'must' and 'cannot' in the above definitions of sufficient and necessary conditions for events. To say that  $E$  must occur if  $SC$  occurs, Labooy argues, is precisely to say that  $E$  occurs in  $n$  worlds, and not in  $m$  worlds, in which  $SC$  obtains, where  $n \gg m$ .

So far, so good, but now he goes on to say that in the context of dispositions, both the dispositional effect and the dispositional alternative have a cause and that therefore, they both have sufficient conditions:  $SC-E$ , the sufficient conditions for the occurrence of the dispositional effect, and  $SC-A$ , the sufficient conditions for the occurrence of the dispositional alternative. It now becomes clear that in the previous chapter, the circumstances  $C$  in the definition of dispositions may not all be causally relevant (this holds only for the structural basis  $B$ ). To study the cause of the dispositional alternative, Labooy has to take  $SC-A$  as a subset of  $C$ . Of course,  $SC-E$  is also a subset of  $C$ . Wondering what the relation is between  $SC-E$  and  $SC-A$  in  $C$ , he states that they can be disjoint, partially overlap, or be identical.

Here I have some worries. In fact neither of these is possible. It is not difficult to see that they cannot be disjoint subsets of  $C$ , so that both  $SC-E$  and  $SC-A$  must be identical to  $C$ . However, but they cannot be identical to  $C$ . Because of spatial limitations I will only prove the latter claim. By the definition of  $SC-E$ , in  $n_1$  worlds in which this condition holds,  $Y$  would occur, and in  $m_1$  worlds  $\neg Y$

would occur, where  $n_1 \gg m_1$ . By the definition of *SC-A*, however, in  $n_2$  worlds  $\neg Y$  would occur, and in  $m_2$  worlds  $Y$  would occur, where  $n_2 \gg m_2$ . Now if *SC-E* and *SC-A* would be identical, the class of worlds in which they obtain will be identical as well. It is likely that in these worlds,  $Y$  and  $\neg Y$  do not both occur, so we arrive at a contradiction: *SC-E* and *SC-A* cannot be identical. I do not know how Labooy can solve this problem, without rejecting his idea that the dispositional alternative has a sufficient condition and accepting that  $C$  is identical to *SC-E*.

## 5 Freedom and act-dispositions

Earlier in his book, he had characterized our intuition of being free with a nice quotation of Nancy Andreasen: ‘We cannot control the cards we are given, but we can choose how we will play them.’ In chapter six, Labooy presents a more thorough analysis of the concept of freedom. Basically, he sides with Nico den Bok and Eef Dekker, who have proposed a distinction between formal freedom and material freedom. Formal freedom means that one is free to will or not will some state of affairs, irrespective of whether one is able to realise the object of choice. Material freedom is precisely that: the freedom to effectuate one’s volitions. Both notions are analysed in terms of synchronic contingency. But freely willing that  $p$  should also be distinguished from having a desire for the obtaining of  $p$ , for the latter is a disposition. Harry Frankfurt (with whom Labooy sympathizes) has called such desires first-order volitions. An act of the will is then a second-order volition, by which a person identifies with one, or some of his (possibly conflicting) desires. This distinction between first-order and second-order volitions is mirrored by the Augustinian distinction between *voluntas* (the dynamic aspect of the will) and *liberum arbitrium*. Labooy makes some further distinctions, and discusses the notion of freedom used by Kart Barth, and the one used by proponents of the free will defence. He charges the latter for not being able to give an adequate concept of freedom, which applies to the situation of Adam before the fall. Although he is a bit quick here, Labooy makes an interesting point, which touches some interesting theological and philosophical questions.

In chapter seven, he analyses the notion of an act-disposition, for which it is essential that the dispositional effect occurs due to the influence of the dynamic aspect of the will. The precise definition is analogous to (D2). He also gives a definition of mental dispositions, in which the act in question consists of having certain thoughts. It will be clear that these concepts are very important in the field of biological psychiatry (think of compulsive disorders).

Labooy states that sometimes, we can *choose* dispositions. Starting to smoke, for example, is a choice that causes a dependence of the body on nicotine, which is a natural disposition. Now we have seen that dispositions are, in Labooy’s analysis, essential properties, so it is not clear how they could be chosen. Another, even more serious, problem concerns Labooy’s claim that the fact that in some particular case, the dispositional effect or alternative occurs, is itself not caused: it is mere coincidence. Which one of the  $m + n$  worlds in which  $C$  obtains is instantiated, is itself not caused. Although this sounds paradoxical, it is a natural

consequence of the uncoupling of causation and necessitation. However, if, in the case of an act-disposition, our doing *Y* is caused by the dynamic aspect of our will, then by the definition of a cause, our doing so in this particular case is mere coincidence. So in the end, the will is free, determinism is ruled out by the 'open' concept of dispositions, we can choose how to play the cards given to us, but we cannot, here and now, play them as we have chosen!

## 6 Conclusion

In chapter eight, Labooy applies his analysis of dispositions to the question of where God interacts with the world. (He rejects the question of *how* God does so, for the reason that every act of God is an act of creation.) After discussing some contemporary ideas concerning gaps in the causal nexus, that are supposed to be provided by quantum mechanics and chaos theory, Labooy works out a theory of Divine action along the lines of his analysis of causation. If God acts, the set of circumstances changes, and if God brings about the sufficient conditions for some event, that event will occur, and there are no worlds in which God does so and the event does not occur. However, it will not always be possible for us to know whether some event has been brought about by God, or is just the occurrence of some dispositional effect or alternative.

The last chapter gives an integrative account of freedom and dispositions, against the broader background of biological psychiatry. Labooy argues that '*The Scotistic philosophical tradition is a suitable candidate for the development of a philosophy of psychiatry, and we have found no other suitable candidate.*' (p. 267, his emphasis) The present discussion shows that there are reasons to doubt the tenability of this claim. We have seen that although Labooy's contribution is highly original and interesting, in its present form it must fail in its attempt to develop a viable analysis of dispositions and causation. Nevertheless, I think that his proposal deserves careful study. Our discussion has led to several interesting questions, for a closer scrutiny of which Labooy has presented us with an interesting framework.