

JAN BRANSEN

MAKING X HAPPEN:
PROLEPSIS AND THE PROBLEM OF MENTAL
DETERMINATION

When I enter my office, I do a great many things without paying any attention to the details of what I do and how I do it. I turn the key to unlock the door, turn on the light if necessary, put down my briefcase on a chair, and take off my coat. All these things I do quite automatically, without explicit consciousness. This is because long ago, or so we might put it, my body took over.

Something similar occurs when I visit my parents, mark papers or buy lunch in the canteen. Time and again I let my parents treat me as a child, write standard comments on the papers, and reply "Sure I will!" when a waitress says "Enjoy your lunch." I do these things quite automatically, without explicit consciousness. This is because my mind took over long ago, at least, that's what I shall suggest.

It is obvious that habits play an important role in the causal history of much of our behaviour. And this is true not only of predominantly bodily behaviour, such as brushing teeth, climbing stairs and eating bread; it is also true of predominantly mental behaviour, such as counting numbers, speaking German, and recognising faces. Habits themselves, however, have a history. We first have to develop them in order to have them cause our behaviour, and in this paper I want to investigate how we can do that. How is it possible that we develop habits? How is it possible, as I shall put it, that our bodies, as well as our minds, are capable of 'taking over'? What is involved in the phenomenon of a body taking over? And in what way does it make sense to talk about the phenomenon of a mind taking over?

These are the questions I shall discuss in this paper. But let me emphasise two restrictions. First, my interest is not in the habits themselves, but in illuminating the first step that leads or might lead to the formation of a habit. Second, my interest is not in the (quasi-)automatic processes taking place on what sometimes is called the sub-personal level. Rather, my interest lies in those habits the formation of which requires the explicit attention and training of the person who

wants to develop those habits, and I shall concentrate exclusively on such formation. My question, thus, is: “How is it possible that we can succeed in satisfying a desire for a habit?” My paradigm cases shall be a child who wants to learn to ride a bike and a philosopher who wants to write in English. Just as the child wants her body to take over, I shall argue that the philosopher should want his mind to take over.

The structure of the paper is as follows. In the first section I discuss in some detail the phenomenon of a body taking over. I shall argue that this phenomenon can be analysed using Dretske’s discussion of what he calls The Design Problem, although I shall emphasise that we have to understand this problem as a practical one to be dealt with at the personal level. This means, or so I shall argue, that there is an important sense in which the phenomenon of a body taking over requires an analysis in terms of rule-following. Next I shall discuss the similarity between the phenomenon of a body and that of a mind taking over, arguing that both phenomena concern the overcoming of a similar kind of indeterminacy. The discussion will suggest that we have to assume that agents are bound, one way or another, to have a tendency to overcome such indeterminacy. Then I shall discuss the difference between the two phenomena, arguing that the rules that play a role in adequate descriptions of these phenomena are very different. The rules that play a role in the case of a body taking over have a content that can fully be articulated in terms of bodily movements, whereas the rules that play a role in the case of a mind taking over have a content the specification of which requires reference to the normative constraints that flow from these rules themselves. This leads to the identification of what I shall call the problem of mental determination: how to get an agent to do something, the nature of which is unclear to this agent until she succeeds in doing it. In the final section of the paper I shall make some tentative suggestions about a peculiar kind of capacity we have to attribute to agents who have minds that can solve the problem of mental determination by ‘taking over’ — the capacity to produce a *prolepsis*, a mental state the content of which precedes, provokes and anticipates the determination of the rule this state is directed at.

1. WHAT HAPPENS WHEN A BODY TAKES OVER

Suppose we want to teach a little girl to ride a bike. The important thing is to put her (that is, her body) on a bicycle, to push the bicycle to give it some momentum, to hold the girl to balance her on the saddle, and to tell her to pedal and control the handlebars. That is, the important thing is to arrange a series of events in which the girl, or her body, is forced to occupy the position of the agent. This is important, because in teaching a little girl to ride a bike we hope to arrange things so that the girl's body can take over. Teaching someone to ride a bike is a matter of putting her (or her body) in the right position so that she can proceed in the right direction, should the right moment arrive.

It is likely that, initially, the girl will feel alienated. She will know what is expected of her, but will not have the faintest idea of how to bring about (as an agent) what she experiences as something that is happening to her. Her knowing that she is expected to ride a bike is, as it were, knowledge 'from outside' — as we know that a bat perceives the wall it is avoiding, even though we have not the faintest idea of how the wall looks to the bat. But then, somehow, when the right moment arrives, the girl's body suddenly succeeds in 'taking over', and it might well be that it is only then that she suddenly realises what it is like to ride a bike. What was constructed, from the outside, as a series of instances or exemplifications of riding a bike — a series in which the girl might have felt herself a passive bystander, or a misplaced stand-in, rather than a successful agent — suddenly becomes recognised, from the inside, as, indeed, a series of instances or exemplifications of riding a bike. As soon as the girl's body takes over, it seems that the experiences in which she is forced to occupy the position of the agent acquire a new meaning. This need not be an absolutely new and different meaning. It might seem to the girl as though she only now realises the point of what she was going through.¹

I shall argue in this section that it is most accurate to analyse the phenomenon of a father teaching his daughter to ride a bike in terms

¹ Discussions with Stefaan Cuypers have led me to give this description of the phenomenology of acquiring knowledge of certain basic practices.

of her and her father trying to follow rules. These rules, or normative constraints, are hinted at by the threefold use of the evaluative qualification 'right': the body has to be put in the right position to make it possible for it to proceed in the right direction, should the right moment arrive. Let me take a closer look at the first two constraints.²

The first constraint addresses the father. It is not up to the little girl, nor her body, to put herself in the right position. Whether or not her body is in the right position is something she cannot help. The first constraint governs the behaviour of the father, and not merely in a passive sense. That is, the constraint does not merely govern the linguistic behaviour of those inclined to describe the efforts of the father as being what is needed to put the girl's body in the right position. Teaching your daughter to ride a bike is not merely behaviour that others can describe as rule-governed, or just regular. No, in teaching a daughter to ride a bike, a father has to follow a rule. His efforts are directed at and guided by the normative constraint hinted at by the phrase 'the right position'. The father is doing his best to arrange things so that his daughter's body can take over. It is, therefore, the father who has to succeed in terms of this first constraint.³

The second constraint, however, the one hinted at by the phrase 'to proceed in the right direction', does not address the father, but the daughter, or perhaps I should say, the daughter's body. Again, the constraint governs the behaviour of the girl not merely in the passive sense, but also in the active sense of requiring her body to succeed in performing in a way governed by the appropriate rule. That is, the constraint does not merely govern the linguistic behaviour of those inclined to describe the girl's behaviour as being an instance of riding a bike; it also confronts the girl with the distinction between what

² In what follows I shall neglect the third constraint. Although it raises some very interesting questions, I shall assume, for the sake of simplicity, that no one is expected to have a hand in making the right moment arrive. That is, I shall assume that the phenomena I am discussing happen at a moment of their own.

³ I assume we are all acquainted with situations in which a successful performance of the instructor does not lead to a successful performance of the pupil. Such situations underscore the mutual independence and the different addressees of the first two constraints; i.e. those hinted at by the phrase 'the right position' (addressed at the instructor) and the phrase 'the right direction' (addressed at the pupil).

counts as an instance of riding a bike and what does not, emphasising that it is up to her to make an instance of the first type happen. Of course, initially, the girl may feel lost, unable to live up to the demands put on her. But the entire situation is such that, assuming that the father succeeds in putting her body in the right position, she is really forced to occupy the position of the agent in a series of events that constitute a series of instances of riding a bike. And the expectation is that in such a situation the girl will be forced to experience what counts as a genuine instance of riding a bike, and will, automatically, as it were, grasp the right type of behaviour by developing an inclination to proceed in the direction exemplified by the series of events she is going through.

One might feel inclined to object that it is a mistake to concentrate on the phenomenological and rule-following features that can be associated with learning to ride a bike, because it is, after all, very much a matter of (quasi-)automatic processes taking place on the sub-personal level. That is, one might feel inclined to credit Dretske for having developed an adequate account of what is going on in a body that is taking over in terms of the recruitment of internal states as causes of the required bodily movements.⁴ On Dretske's account we don't need rule-following considerations to understand such simple processes as learning to ride a bike. Teaching a child to ride a bike can best be approached as an instance of The Design Problem: "We want a system that will do M when, but only when, conditions F exist."⁵ To solve this problem, we only need the assumption that the body in question is equipped with certain indicators that, in a learning process involving timely reinforcement, become selected as causes of M, because of their function to indicate F. "Learning of this sort is a way of shaping a structure's causal properties in accordance with its indicator properties."⁶ The contingent fact that most five-year-old children can learn to ride a bike confirms the assumption that their bodies are properly equipped.

⁴ Dretske (1988).

⁵ *ibid.* p. 96.

⁶ *ibid.* p. 101.

I have no problems with this account. Indeed, I think it is admirably clear. I do not think, however, that Dretske's analysis raises an objection to my analysis in terms of rule-following. As long as we are talking about the phenomenon of a body taking over, I think it does not matter much whether you say that (1) the body (or the person whose body it is) develops an inclination to proceed in the right direction if put in the right position, or (2) the recruitment of internal indicators C as causes of M has taken place. Learning to ride a bike is a process that partly takes place on the sub-personal, merely bodily level: it implies the structuring of causal affairs on the level of the nervous system. But it is also a process that takes place on the level of the embodied person: it implies the mutual co-operation of father and child, sympathetically joined together in an attempt to succeed. Of course, these different accounts emphasise different features of the phenomenon in question. Talking about a mechanism of recruitment makes it very easy to understand that the phenomenon of riding a bike is very similar to many typically natural phenomena, e.g. a tree shedding its leaves in late autumn, a bee stinging a child, a dog attacking a neighbour. Talking about an attempt to proceed in the right direction makes it, on the other hand, very easy to understand that the phenomenon of riding a bike is very similar to many typically human phenomena, e.g. playing the piano, writing in English, pleasing your little brother. Since I am interested in the phenomenon of a body taking over precisely because I want to understand more about what I call the phenomenon of a mind taking over, I see no reason to suppress the similarity between learning to ride a bike and learning to write in English.

Let me add one more comment. Of course it is obvious that there is a lot of suppression, or at least a lot of sober abstraction, involved in the attempt to understand such landmarks in your youth as learning to ride a bike or learning to swim in terms of the recruitment of internal indicators as causes of certain bodily movements. In itself, there is nothing wrong with such suppression. Often we may have good reasons to suppress our emotional associations, particularly when attempting to understand the real nature of what happens to, or with, us. But I don't think we have good reasons to suppress, or neglect, the rule-following features of learning to ride a bike. To see

this, it might help to point out the crucial role of these rule-following features in the background of Dretske's account. Remember that Dretske's account begins with the introduction of The Design Problem. But if we accept that there is such a problem in learning to ride a bike, we should accept that this problem presents itself to the father and his daughter as a *practical* problem. We cannot just begin by positing, as theorists, an impersonal interest in a system that will do M when, but only when, conditions F exist. This interest is practically located in the desire of the father and the girl for a system (the girl's body) that will do M when, but only when, conditions F exist, or, in my terminology, a body that will proceed in the right direction if put in the right position. This means that the girl and her father face a problem they want to solve, and that is just a way of saying that both should meet specific normative constraints. The Design Problem, in other words, is in the case in which we want a body to take over, not merely a theoretical, heuristic construction, but a practical problem to be dealt with at the personal level. The girl is forced to distinguish between what counts as an instance of riding a bike and what does not, and she is challenged to make an instance of the first type happen. And, apart from preventing his daughter from falling off the bike, the father is challenged to produce timely reinforcement. He is forced to reward output M when, but only when, conditions F exist. In doing so he should try to make himself superfluous, by conscientiously pointing out to his daughter the natural rewards that are, initially, so hard for her to discern by herself.

2. INCAPACITY AND INDETERMINACY

The unpromising dualism apparently implied by my use of the distinction between body and mind might make one feel uncomfortable. One might feel inclined to object that it isn't clear whether it makes sense to suggest a parallel between the idea of a body taking over and that of a mind taking over, because it isn't at all clear whether it makes sense to make a distinction between the two. After all, in both cases one is dealing with a person, not with a body or a mind. And though we use the popular metaphor of 'the body taking over' for cases in which persons learn to produce specific bodily

movements, it is not at all clear whether the phrase of a mind taking over could be used for something else. That is, one might suspect that both phrases refer to the same enterprise: getting someone to acquire ‘knowledge *how*’, or, in Dretske’s terminology, shaping a system’s causal properties in accordance with its indicator properties.

To meet this objection I shall analyse in detail what makes the phenomena different enough to treat them as two different kinds, and what makes them similar enough to think of them as pointing towards an interesting and important parallel. The similarity is the topic of this section. I shall argue that both phenomena involve a similar kind of internal indeterminacy to be overcome by having a body, or a mind, take over. In the next section I shall discuss the difference, arguing that it consists, primarily, in the fact that the contents of the constraints involved require in the case of the body merely the ability to have states with content, and in the case of the mind also the ability to have states about content.⁷

First, then, the similarity. In the case of learning to ride a bike and that of learning to write in English, we are dealing with an agent who is eager to do what he cannot yet do. Somehow the agent is not capable of doing what he wants to do. There are many such cases, and they differ in important ways due to what precisely prevents the agent from doing what he wants to do. You may want to stroke a dinosaur, but you cannot since dinosaurs are extinct. You may want to fly like an eagle, but you cannot because you lack the appropriate equipment. You may want to refrain from smoking, but, given your weakness of will, you may never succeed in doing so. You may want to swim and you may be right in thinking that one day you will, because, assuming you are an ordinary, healthy person, you are equipped with the appropriate body, which means that you have the capacity to swim even though it is not yet developed. Swimming is one of those habits you are capable of developing, just like riding a bike or writing in English, but unlike running a mile in less than ten seconds.

⁷ I am influenced by Philip Pettit to think of the difference between agents merely having bodies and agents having minds as well as a difference to be understood in terms of agents having states with content and agents having states with and about content. See Pettit (1993).

In the first example, your incapacity follows from certain facts concerning the actual world. Just as you will never talk to a gnome, since there are no gnomes, and will never meet Napoleon, since he died many years ago, you will never be able to stroke a dinosaur. In the second example, your incapacity follows from certain physical facts concerning your body. Just as you will never run a mile in less than ten seconds, and never swallow an elephant, you will never fly like an eagle. Then there is the example involving *akrasia*. In that case you know what you want to do, and you know how to do it, but, given the contingent weakness of your will, you just don't succeed in bringing about what you most want to bring about. In the final example, the one I am interested in, the important obstacle does not consist in the weakness of your will, nor in certain undeniable facts concerning the actual world or your body. In cases such as these you're obstructed by some kind of internal indeterminacy, as a consequence of which you do not know how to do what you want to do. And this is not a matter of missing some crucial instrumental information, as in the case of a bank employee who wants to open a safe but does not know the combination. The 'knowledge *how*' you lack in those cases where you want your body or your mind to take over is real, practical knowledge, knowledge that consists in knowing how to behave.

It will help to use Dretske's definition of behaviour here. According to Dretske, behaviour "is to be identified with a complex causal process, a structure wherein certain internal conditions or events (C) produce certain external movements or changes (M)."⁸ Behaviour, according to Dretske, is not merely the product, that is, not merely a matter of bodily movements, but the process of C causing M. Accordingly, when you do not know how to behave, this is not merely a matter of the incapacity of your body to be in state M. When you do not know how to behave, this means you are unable to be in state C qua being the state of causing M. We have seen this in the case of learning to ride a bike. It is not that the girl is unable to have her body 'make' the required bodily movements, in the passive sense of her body being moved in the required way by her father; the girl's

⁸ Dretske (1988), p. 21.

incapacity consists in her inability, to put it in Dretske's terminology, to have the appropriate internal indicator states C function as causes of M.

That is, in cases in which we want the body to take over (such as not being able to swim or not being able to ride a bike), as well as in cases in which we want the mind to take over (such as not being able to write in English, or not being able to have a good chat with a stranger), the incapacity is a matter of the absence of well-determined internal states that can function as structuring causes to bring the required event about. Dretske's terminology helps us understand the specific nature of the kind of cases that need either a body or a mind to take over. It is the absence of well-determined states that can function as structuring causes.

This helps us understand the difference between these cases, in which we want the body or the mind to take over, and (1) the case of *akrasia*, (2) that of missing instrumental information, and (3) those of missing the appropriate physical constitution. In the case of *akrasia*, the agent knows what she wants most, and she knows how to do it, but she is simply unable to get into the internal state that will trigger the required behaviour. That is, the akratic agent is not unable to be in a well-determined state that does function as a structuring cause.⁹ Her weakness of will consists in her inability to produce a token of the required internal state; i.e. her incapacity is a consequence of her being unable to produce the triggering cause. That makes her case similar to the one of the bank employee who would know how to open the safe if only he knew the combination. Both these cases, however, are unlike the cases in which we want a body, or a mind, to take over. In such cases, the agent in question lacks the appropriate internal structure to be in a specific state that, because it is a token of the relevant type of structuring cause, will be the triggering cause of the required behaviour.

The cases of wanting a body, or a mind, to take over may, in a sense, be considered to be exactly like the case of someone who wants to fly like an eagle. The only difference might seem to be a difference between realistic and unrealistic expectations. Both cases

⁹ Cf. Kennett and Smith (1994). I will return to *akrasia* below.

might be understood as involving a Design Problem within specific boundary conditions. Given the kind of beings we are, i.e. the kind of bodies we have, it seems appropriate to expect your body to solve the Design Problem introduced by your wish to ride a bike, and it seems hopeless to expect your body to solve the Design Problem introduced by your wish to fly like an eagle. Why is this?

Let me give a question-begging suggestion, and an Aristotelian speculation. The suggestion is that if you want to fly like an eagle, the behaviour needed cannot be specified in terms of movements made by your own body, whereas it can in the case where you want to ride a bike. There may be vague boundaries. Perhaps it is possible to specify the behaviour needed to run a mile in less than ten seconds in terms of movements made by your own body. Perhaps not, however, if you require that the specification contains the (neuro-)physiological conditions under which it would be possible for a human body to run a mile in less than ten seconds. This suggestion is question-begging because it takes for granted that you have the kind of body that is the kind of body in terms of which we can, or have to, specify the desired kind of behaviour.

The speculation is that we have to attribute to bodies a tendency to behave in ways appropriate to the kind of bodies they are. Bodies have a telos, or, using Dretske's terminology in a way that pushes it beyond the boundaries of the theory he wants to defend: bodies have the tendency to turn their indicator states into states that have the causally efficacious function to indicate. We have to attribute to bodies the ability to solve particular Design Problems, namely those that fit their functionality, not merely because these problems require movements that can be specified in terms of these bodies, but also because these bodies have some natural tendency to use their sensitivity appropriately. Assuming the existence of a *mechanism of recruitment* explains the phenomenon of a body taking over only if this 'mechanism' itself is driven by some intrinsic tendency we have

to attribute to the body, that is, a tendency to turn its indicator states into states that have the causally efficacious function to indicate.¹⁰

In the final section I shall return to this idea of attributing to bodies an intrinsic tendency, suggesting that we have to attribute a mental parallel, a tendency to produce what I shall call a *prolepsis*, to agents having a mind. But let's not jump ahead. I shall first conclude this section.

The important similarity between the phenomenon of a body taking over and that of a mind taking over consists, then, in the following fact. A specification of the complete set of internal states the body, or the mind, might intelligibly be said to be in, does not, prior to the actual happening of the body or the mind taking over, mention a state that would be a structuring cause of the required behaviour, whereas it does mention such a state after the body, or the mind, did in fact take over. That is, a girl who cannot ride a bike does not have a body that can sensibly be said to be able to be in a state that would be a structuring cause of an instance of riding a bike, just as a philosopher who cannot write in English does not have a mind that can sensibly be said to be able to be in a state that would be a structuring cause of an instance of writing in English.

In the next section I shall discuss how the mental case differs from the bodily one.

3. MENTAL INDETERMINACY AND ACQUIRING INTENTIONS

I argued in Section 1 that, in the case of the body taking over, nothing very important hinges on the use of either Dretske's quasi-mechanical terminology or the use of phrases referring to rule-following. As we shall see in this section, however, we cannot deal well with the phenomenon of a mind taking over unless we use the rule-following terminology. Let me, therefore, recast the conclusion of the preceding section in terms of rule-following. I elaborated on the suggestion that the phenomenon of a body taking over and that of a mind taking over are similar in the sense that in both cases the incapacity to be over-

¹⁰ I think spelling out this Aristotelean speculation will support, and be supported by, the argument against Dretske's theory of the causal efficacy of representational content developed in Baker (1995), pp. 56-62.

come consists in a particular kind of internal indeterminacy. I used Dretske's term 'structuring cause' to indicate the kind of state the person cannot be in prior to the actual event of the body, or the mind, taking over. I might as well have said that the person in question does not have the inclination to proceed in the right direction if put in the right position. Or, again, I might have said that the person in question cannot be in an internal state for whose individuation we would need to refer to a rule. This is the crucial formulation, so let us be careful. A structuring cause is, according to Dretske, that which causes a triggering cause C to cause M.¹¹ A structuring cause is that which makes it possible for a system to be in state C qua being the state of causing M. A structuring cause is, therefore, a state to be individuated in terms of a (rule-governed) regularity, linking C's to M's. The structuring cause is that which is responsible for any token C being a triggering cause of an instance of behaviour M. This means that to point out the structuring cause is a matter of referring to a rule. The structuring cause that explains why the thermostat turns the furnace on at this moment is the regularity built into the system which guarantees that the thermostat will produce M when, and only when, it is in state C. The structuring cause that explains why I make the appropriate movements when riding a bike is the inclination I developed long ago to proceed in the right direction if put in the right position.

The conclusion of the previous section, then, is: when we want a body or a mind to take over, we are dealing with a person that cannot be in a specific internal state the individuation of which would require reference to a rule. And, in addition, I would suggest that when we try to get the body or the mind to take over, we are trying to get the person to learn the rule in question. This will suffice for the coming discussion of the difference between the phenomenon of a body taking over and that of a mind doing so.

Above I made it clear that trying to teach your daughter to ride a bike is on the one hand a matter of putting the girl's body in the right position, and on the other one of timely reinforcement, i.e. of sensibly

¹¹ Dretske (1988), pp. 42-44, pp. 86f.

emphasising the natural rewards generated by noticing the connection between, for example, speed and efforts invested in pedalling. A father tries to acquaint his daughter with the rule of riding a bike by teaching her to distinguish between events that are rightly classified as instances of riding a bike and events that are not. Notice that the father is not teaching his daughter the *concept* of riding a bike, but rather the *ability* to ride a bike. He is, therefore, not supplying the girl with a sufficient amount of *perceptual* exemplars of riding and failing to ride a bike, but with a sufficient amount of *agential* exemplars of riding and failing to ride a bike. That is, he is attempting to arrange a series of events in which the girl, or her body, is forced to occupy the position of the agent. When the body takes over, it has, apparently, succeeded in ‘grasping’ the rule; not, of course, in a conceptual sense, but in some sense of embodying the rule, by having developed the actual possibility to be in some internal state the individuation of which would require reference to a rule. My suggestion now is that we can understand the phenomenon of a body taking over in terms of getting it to embody a rule, because the rule in question can be completely articulated in terms of the body producing, due to some internal cause, the required bodily movements. Thus, once a body has developed the actual possibility to be in an internal state that would function as a cause of those bodily movements that are correctly described as riding a bike, we can individuate this internal state by referring to the rule of riding a bike, precisely because it is the internal state of causing the bodily movements specified in the content of the rule as the movements that constitute riding a bike. This may sound pointlessly complicated, like the philosopher in Molière’s *Le Bourgeois Gentilhomme* who needs so many words to pronounce the vowel ‘o’.

But it will prove not to be pointless once we concentrate on the parallel case of trying to get a mind to take over; for instance, the case of the philosopher who wants to write in English. How will we be able to get him to write in English, given that it means (1) that we are dealing with a person, or mind, unable to be in an internal state that would be a structuring cause of the required behaviour, say, that of putting adverbs in their proper places; and (2) that we want this person, or mind, to ‘grasp’ a rule, not merely in the conceptual sense

of being able to distinguish between correct and incorrect instances of the required behaviour, but in the agential sense of being able to produce correct instances?

A reductive physicalist would not have a problem here, or so he may think. He might have been reluctant to let me get away with introducing the rule-following terminology, and he will have been on his guard against the pitfalls he expects me to be heading for, but now he is likely to be relieved. He will consider it queer to hear me talk about embodying regularities as though that is a matter of ‘grasping a rule’. But he will be able to cope with such strange phrases as getting a mind to embody a rule. He will stress, of course, that there is after all no intelligible distinction between getting a body or getting a mind to take over. It is the same process: restructuring a system in order to get the causal properties of its internal states to accord with their indicator properties.

Unfortunately for the reductive physicalist, however, he is illegitimately jumping to conclusions. We can see this as soon as we try to specify the rules we want to get a mind to grasp by taking over. What rule is there for someone to grasp if we want this person to put the adverbs in their proper places? Clearly a rule of grammar, but it will be obvious that it makes no sense to try to articulate the content of this rule in terms of the bodily movements that constitute cases of putting adverbs in their proper places. Of course, this does not mean that the rule of grammar does not guide us in our attempt to distinguish between behaviour that counts as putting adverbs where they belong and behaviour that does not. The asymmetry in question has everything to do with a well-known feature of mental content: its multiple realizability. There are many behavioural ways to put adverbs in their proper places. Or, to use a more telling example, the content of the rules of chess cannot be articulated in terms of the physical movements of the pieces, even though, given a particular context (e.g. an ordinary board, or a travel version, or merely a notation system), the rules specify all movements that can intelligibly be made.

But given this multiple realizability, how will we be able to get a mind to take over? As we have seen, we can lay hold of a body and put it, from the outside, as it were, in the right position, so as to force the agent to experience agential exemplars of the required behaviour.

But now it seems as though this is not going to be possible in the case of wanting a mind to take over. For it seems that the multiple realisability of the rules we want the mind to follow implies that there is no way to point out the content of these rules from outside. Or, to put it another way: a mind can develop an extrapolative inclination only in terms of *following* a rule, and not in terms of *embodying* a rule, i.e. not in terms of being in a particular state that can be individuated from outside, without explicit reference to its content.

This, however, raises an interesting problem. For given the fact that we are dealing with a mind that does not yet grasp the right rules, how will we be able to force the agent to experience agential exemplars of following these rules, given the fact that there is no way to point out the content of these rules from outside? That is what I call the *problem of mental determination*. It is the problem of how to get an agent to do something the nature of which is unclear to her until she succeeds in doing it. I will say something more about it in the following, final section. But let me first complete the discussion of the difference between the phenomenon of a mind and that of a body taking over.

We have seen in Section 1 that in cases where we want a body to take over we try to get the body to develop an appropriate inclination by providing it with a sufficient amount of agential exemplars of the desired behaviour. Such training fits well with Philip Pettit's account of rule-following, an account in which a crucial role is played by the extrapolative inclinations language-users naturally develop if confronted by a sufficient number of exemplifications of the rule in question.¹² It is actually rather striking that the contemporary debate on rule-following is for the most part concerned with the acquisition of concepts, and not with its agential counterpart, the acquisition of intentions. It is the latter, however, I shall now concentrate on. In the case of a body taking over we want the body to develop an extrapolative inclination to proceed in the right direction if put in the right position, and we can think of the body's success in terms of it acquiring the ability to behave appropriately. We do not require the

¹² Pettit (1991), (1993).

body to grasp in any serious sense the content of the rule we have to refer to in judging the behaviour appropriate. All we ask is that it develops internal states that can function as structuring causes; states that can sensibly be described as extrapolative inclinations.

In the case of a mind taking over we want something similar. We want this mind to develop an extrapolative inclination to proceed in the right direction if put in the right position, but here we have to think of the mind's success in terms of it acquiring the intention to behave in accordance with the rule. Given the fact that the content of the rule in question cannot be completely articulated in terms of bodily movements, what we need is for the mind to grasp in some serious sense the content of the rule it has to follow to produce the required behaviour. We need a mind that must be able to have, to put it in Pettit's terminology, not merely states with content, but states about content.¹³ It is quite innocent, following Pettit, to suggest that the internal state someone can be in after she has learned to ride a bike, the state that is the structuring cause of her bike-riding behaviour, is a state with content.¹⁴ But it does not seem to make much sense to claim it is a state about content. A girl who has just learned to ride a bike will most probably not be able to specify the content of this structuring cause, except by demonstrating that she can ride a bike. Her intention to ride a bike is a state with content, but not about content. That is, her intention does not specify the conditions that would make her behaviour right or wrong instances of riding a bike. The distinction between success and failure is not made by her intention, but by her ability to produce the required behaviour.

In a case where we want a mind to take over, however, where we want someone to write correct English, or be able to have a good chat, please his mother or surprise his wife, we want him to be able to form the intention the content of which specifies, somehow, what is the right way to proceed. This does not mean that we want him to be able to conceive this content and discuss it reflectively. As is often noted, it is quite possible to master a language without explicit knowledge of its rules of grammar. But in wanting a mind to proceed

¹³ Pettit (1993), pp. 60ff; pp. 69ff.

¹⁴ *ibid.* pp. 54-60.

in the right direction, we want it to acquire intentions that focus explicitly on the rule it attempts to follow. Compare this with what happens in cases where your body is temporarily unable to take over, for example when you have to drive an unfamiliar car, or when you have a broken arm and have to do all kinds of familiar things with your other hand. In such cases you have to pay close attention to the rules you attempt to follow, and to form very explicit intentions to control your conduct. A mind needs such explicit intentions, such *conduct-controlling pro-attitudes*, as Bratman has called them,¹⁵ in order to succeed in taking over.

We are almost ready to discuss the role of prolepsis in the phenomenon of a mind taking over. Let me first, however, return for a moment to the contrast between the indeterminacy of persons who want their mind to take over and the incapacity of the akratic person. Using Kennett and Smith's way of formulating it, the weak-willed person fails to exercise her capacity for self-control, which means, according to Kennett and Smith, that such a person fails to have the right thoughts at the right moment, even though she could have had those thoughts.¹⁶ According to Kennett and Smith's picture of the mind, the weak-willed person fails to have the thoughts that would cause her to have the right conduct-controlling pro-attitude.¹⁷ Because the person is weak-willed, and not compelled, Kennett and Smith argue that we have to assume that she could have had the right thoughts at the right moment. This, however, is precisely what we do not assume to be the case with persons who want their minds to take over. These persons are not weak-willed, but they are indetermined. They cannot have the right thoughts, because they have minds that are not yet capable of grasping the content of these right thoughts. This does not, at least not

¹⁵ Bratman (1987), pp. 16f. I sympathize with Bratman's claims that intentions should be understood as distinctive states of mind, on a par with but irreducible to desires and beliefs. This, however, is clearly not the place to defend this three-partitude picture of the internal structure of minds.

¹⁶ Kennett and Smith (1994) pp. 150-154. See also Smith's paper in this volume, pp. 33-37.

¹⁷ This is not Kennett and Smith's phrase. But it is their point: "having such thoughts will cause him to have the desire that will in turn cause him to act in the way he believes he has most normative reason to act." *ibid.* p. 153.

in a very interesting sense, mean that they are compelled. After all, although someone incapable of riding a bike is bound to fall off if put on a bike and left to herself, it does not seem appropriate to say that she is compelled to fall off. And this is so because we use the word ‘compel’ when we talk about behaviour and its external causes. It is, however, doubtful whether falling from your bike is behaviour. Though it is probably bound to happen, it is arbitrary to say that this rather than that is the triggering cause that makes it happen.

My suggestion now is that in a case where we want a mind to take over, the ‘behaviour’ that shows that the mind has not yet succeeded is more like a happening that does not have a significant triggering cause than like compelled behaviour. This is clear in the case of failing to put adverbs in their proper places, and in the case of a little child failing to count to ten. Of course the philosopher learning to write in English is not compelled to put the adverb before or after the verb, or at the end of the sentence, just as the child is not compelled to say ‘8’ after ‘5’. It might well have been ‘9’, or ‘3’, or even, accidentally, ‘6’. She is not behaving in a rule-governed way, although she tries to determine her behaviour *proleptically*, as I shall call it, by reaching out for the rule she tries to follow.

4. PROLEPSIS AND THE ABILITY TO TURN REASONS INTO CAUSES

Let me recapitulate. I have developed a picture of an agent who wants his mind to take over. Such an agent is incapable of forming the required intention. He is not (yet) capable of being in the right conduct-controlling pro-attitude. I have argued that the case of such an agent is in a sense similar to that of an agent who wants his body to take over, because in both cases the agent is urged to overcome an internal indeterminacy by ‘grasping’ a rule. We want the agent to proceed in the right direction if put in the right position. But there is an important difference. In the case of a body taking over, the agent can be guided *from the outside*. A body can be forced from the outside to occupy the position of the agent in a series of events that constitutes a series of *agential* exemplifications of the behaviour we want the body to produce by itself. But a mind cannot be forced from the outside to occupy the position of the agent. An agent cannot, in

this way, be helped from the outside to have her mind take over. In cases where we want a mind to take over, both constraints — that of having to put the mind in the right position and that of having to proceed in the right direction — address the agent herself. She is the one who has to put her mind in the right position and is also the one who has to force her mind to proceed in the right direction.

We know this from ordinary life. If we want a child to do certain things she can do only if she has certain intentions (e.g. to be nice to her little brother), all we can do is set a good example, after which we have to wait for a proper imitation before we can praise or blame her in the right way. Timely reinforcement is much more effective and much easier to accomplish in the bodily case when we try, for example, to teach a child to ride a bike, because in such cases we can, so to speak, push and pull on both sides. In a case where we want a mind to take over, however, we cannot confront the person with *agential* exemplifications in which the person herself is forced to occupy the position of the agent. We cannot force a child to undergo the experience of being nice to her little brother. We can only set good examples and trust that the agent has some intrinsic drive to imitate us, upon the appearance of which we will produce timely reinforcement by exaggerating our reactive attitudes of praise and blame.

Behind this drive to imitate, to mimic the intentions of people one takes as a model, we may suspect the presence of the mental counterpart of the bodily tendency I speculated about at the end of Section 2, when I said that we may have to attribute a certain tendency to bodies in order to understand why they are capable of solving only those Design Problems that fit their functionality. My suggestion now is that it will make sense to attribute to minds a similar tendency to solve certain Design Problems, namely those problems that concern the need to determine the content of an intention one wants to have. I suggest that we think of it as the tendency to produce a *prolepsis*, because it is a tendency to leap forward, a tendency to produce a state of mind the content of which — in being presented as the first of a

series — precedes, provokes and anticipates the determination of the rule this state is directed at.¹⁸

The term *prolepsis* has its origin in the philosophy of Epicurus. It became a key term in Hellenistic epistemology, meaning the preconception or initial conception of a thing that naturally comes to the human mind without special mental attention when confronted with a first instance of such a thing. Such preconceptions were considered to be indispensable starting points in philosophy. Being given (in a contingent, but still systematically similar way to all human beings), they are what makes the search for and discovery of new knowledge possible.¹⁹ In speaking of *prolepsis* I aim to connect my discussion of a mind's tendency 'to take over' to these ancient ideas because of the following four considerations: just as in the Hellenistic idea (1) the tendency I am speaking of consists in the creation of an inclination as a natural response to a limited series of exemplars; (2) the *prolepsis* has a content that is an anticipation of the generic concept the exemplars in question fall under; (3) the *prolepsis* is an indispensable starting point for the development of mental growth; and (4) the matter is deeply relational: contingent but systematically similar minds respond appropriately to specific salient features in situations that fit their functionality.²⁰

What I am suggesting, but let me emphasise that this is very tentative, is that what happens when a mind takes over is nothing other than the production of a conduct-controlling pro-attitude the content of which — in being presented as the first of a series — precedes, provokes and anticipates the determination of the rule the mind

¹⁸ I am indebted to Wayne Hudson for making me aware of the function of *prolepsis*, or *Vorschein*, in his 1981 lectures on Ernst Bloch's Open System philosophy. Cf. Hudson (1982), pp. 138-139.

¹⁹ See Sandbach (1971), and Long & Sedley (1987) pp. 88-90 and pp 249-253.

²⁰ Let me stress, however, that, unlike the Hellenistic philosophers, I do not wish to claim that a *prolepsis* can be used as a criterion of truth. That is, I do not claim that the intention one succeeds in having by solving the problem of mental determination one faced, is the intention one *should* have in the situation one is in. In other words, the rule one discovers as the rule one follows in the situation one is in, need not be the rule that should be followed. There is, in other words, no apriori guarantee that the intention one succeeds in forming *is* the intention that correctly satisfies one's desire for the right intention.

attempts to follow. Getting your mind to take over is a matter of proceeding in the *right direction*, by turning your actual state of mind into the *right starting point*, or, to put it otherwise, by identifying a way to grasp your actual state of mind as a position from which to proceed in a particular direction. Thus, the philosopher wanting to write in English gets his mind to take over by putting a particular adverb in a particular place, acknowledging that putting the adverb in this place is not an arbitrary guess but a matter of following a rule. What I am suggesting is that in a case where a mind succeeds in taking over, the agent might be said to have put her own mind in the right position by proceeding in the right direction. Such a success presents itself, for instance, in the confidence you may feel in judging that some native speaker made a mistake you identify as, indeed, a mistake. This means that, intriguingly, the token of the appropriate behaviour precedes, provokes and anticipates the determination of the type of which it is a token. Or, again, the agential exemplifications the agent needs in a sufficient number in order to learn the content of the intention that is needed to individuate the behaviour in question, precede, provoke and anticipate the determination of the very intention in question. The upshot is that the phenomenon of your mind taking over might surprise you just as the phenomenon of your body taking over can surprise you. The idea is that you suddenly recognise that one of your inclinations has been evoked by the rule you wished you could follow. The smile on your little brother's face might take you by surprise and convince you of the fact that what you just did was an agential exemplification of being nice to your little brother.

This may sound odd, or wrongheaded, for it seems to suggest that in a case where the mind takes over, the intention with which the behaviour is performed, is produced by or 'discovered by', the very behaviour in question. Though this may sound odd, it is, however, precisely what we should have expected. After all, since we were trying to understand the phenomenon of a mind taking over, we were trying to understand the possibility of something happening in an agent, something that would amount to the performance of the required behaviour in a situation in which it was not possible for the agent to form a prior intention, because it was not possible for this agent to grasp the content of that intention. Consequently, what we

were looking for was precisely the generation of an intention through the working of the mind. What we get is, therefore, a characterisation of a mind capable of taking over, a mind that has some kind of intrinsic tendency to generate intentions through or by means of the performance of agential exemplifications of the rules that are the contents of the very intentions in question.

In addition I should like to stress that I assume most of us are acquainted with very telling examples of the phenomenon of our mind determining the content of an intention by means of causing the behaviour that is best described as being done with the intention in question. And as can be expected, most of the examples will concern exploring new agential possibilities, with taking the first step towards the formation of what might turn out to become a mental habit. Most of us, being philosophers, will know what it is like to write a philosophical paper. First there is the hunch, some vague intuition, and then, after you have finished the first draft, you discover what you were trying to say.²¹

All this seems to suggest that getting your mind to take over is a matter of *proleptically* reaching out for the rule you try to follow, a rule you are unable to grasp yet. I think it is this ability to produce *prolepses* — states of mind the content of which precede, provoke and anticipate the determination of the rules such states are directed at — that we have to look for if we want to solve the problem of mental determination. That is, we have to assume that agents are capable of producing *prolepses* if we want to understand how to get an agent to do something, the nature of which (1) cannot be specified in terms of bodily movements, and (2) is unclear to this agent until she succeeds in doing it. And I should like to claim that we often want to understand our own agency along these lines, given that we are often

²¹ The phenomenon is likely to be very common in the more creative disciplines, where people devote their energy to the realisation of possibilities, and hence have to get in tune with the real dispositionality of their object. (Cf. Hudson (1982), pp. 173.) Compare this with Kahn (1988), who defends a reading of Plato's dialogues as 'proleptic', since the ideas that are clearly articulated in later dialogues are in more obscure formulations anticipated in earlier dialogues.

looking for practically successful ways in which to turn our reasons into causes.²²

Department of Philosophy
Utrecht University

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