

## Habits and Explanation

If you do something often and in a way which appears settled, you are normally described as having a habit. We assume we have habits as parts of skills, habits of social behaviour, and also deeper ones, like habits of thought. Good habits are called by St. Thomas Aquinas virtues, bad ones vices. Even those who are good at using Ockham's razor confess sometimes their acceptance of habits. Hume admits that we all have a habit of jumping from constant conjunction to necessary connection. Quine alludes to the fact that we all have a habit of disturbing our set of accepted beliefs as little as possible. Moreover, the notion of practice as used by sociologists and historians is often assumed to be composed of habits: either as a summation of habits of many individuals, or as a collective habit of social entities like groups or institutions.

So, habits form a crucial part of our everyday conceptual scheme used to explain normal human activity. They have however been neglected in debates concerning folk-psychology. These debates have concentrated on propositional attitudes, like beliefs. Using these attitudes as examples, radical eliminativists argue that folk-psychological explanation will have merit only if it reduces smoothly to neurophysiological explanation. But, according to them, folk-psychology exhibits explanatory failures on an epic scale (e.g. Churchland 1981; Stich 1983). The way our best theories in cognitive science carve up our mental activity is, or will turn out to be, so different from the way folk-psychology does it that there will be no possibility of identifying an adequate correspondence between the two. When we talk of beliefs, we are missing the joints: we are not referring to natural kinds that could ever be reduced to neurophysiological states of affairs. Smooth reduction is impossible. So, we ought to abandon all folk-psychological explanations and the ontology they presuppose. But opponents have come to the rescue of folk-psychology. Among others, we find those who assure us that it enjoys a certain kind of healthy autonomy from neurophysiology *precisely* because there is no smooth reduction (Terrence and Woodward 1985). Moreover, taking folk-psychology to be a body of theory of the same kind as a scientific theory is a mistaken assumption: folk-psychology is not so much a theory as a craft (Dennett 1991).

All these arguments however show some lack of generality because the propositional attitudes do not exhaust all kinds of mental states. Mental states that are not propositional attitudes have been neglected. In this paper I propose to add generality to the debate by considering habits. I will argue that the case for the autonomy and plausibility of folk-psychological explanation becomes stronger when one takes into consideration one example from the non-propositional-attitude mental states, namely habits.

First, I must secure the claim that habits are in fact mental states of this kind. Since there is no consensus about the dividing line between the mental and the physical, I will start by examining the similarity between habits and typical mental states like beliefs. Our normal understanding suggests that habits need time to set in.<sup>1</sup> For example, you used to do X in situation S consciously and

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<sup>1</sup> It is useful to recall that philosophical reflection on habits has a long history. For Aristotle, a habit is a kind of quality: 'By quality I mean that in virtue of which people are said to be such and such. Quality is a term that is used in many senses. One sort of quality let us call habit or disposition. Habit differs from disposition in being more lasting and more firmly established' (*Categories* 8, 8b). This was elaborated by subsequent commentators as a doctrine according to which a person can naturally exercise certain powers in such a way that, with each exercise of these powers, a special quality is produced, called habit, which makes for ease and pleasure of future action. Hence power gives rise to action, and action gives rise to habit. Habit is traditionally considered as

intentionally. Then, at a later time after repeated performance, you do X in situation S without the full consciousness and full intention you used to have before. Your action becomes part of your set-up, and you just follow the rails leading you on: you proceed on automatic pilot. But the important point is that you retain some control. Even when you have a set habit of doing X in situation S, you still retain the power to readjust your behaviour: the power to consciously, and sometimes with considerable effort, not do X in situation S. Lacking this possible self-control, you will not be described as having a habit but a compulsion: your regular behaviour would have become one of your unchangeable physical properties.<sup>2</sup> If we accept this much about habits, we see that they are dispositions of which we are not always conscious. This lack of consciousness does not imply that they cannot be mental states. Even beliefs are not always accompanied by the awareness that we have them. You certainly had the belief yesterday, say, that foxes do not play the clarinet even though you never thought of it before. Just as the dispositional character of beliefs does not preclude calling them mental, so also with habits.<sup>3</sup> The dispositional character of habits is however of a certain kind. Habits are not mental dispositions of the same kind as beliefs. People do not have a habit *that p*, but normally *of doing X in situation S*. Habits are thus mental states more like, say, fear or love. They are not attitudes towards propositions. If beliefs are said to deal with propositions, and love or fear with persons or situations, habits may be said to deal with action. In sum, it is very reasonable to hold the preliminary claim of this paper, namely that habits are in the category of non-propositional-attitude mental states.

To deal with habits, radical eliminativists may argue that talk involving habits should be abandoned because it blinds us with vacuous explanations. Suppose two persons show the same outward behaviour. Folk-psychology would have us explain the similarity by alluding to the same habit the persons have. This move however is hopelessly circular. No proper explanatory role is being played by habits. In fact, to say that the behaviour patterns of two people are the same because they have the same habit is as useless an explanation as saying that a certain potion makes you sleep because it has a dormitive virtue. Conclusion: eliminate folk-psychological habit-talk. As some social theorists suggest, a habit should be seen as nothing more than a causal chain leading to a particular behaviour pattern (e.g. Turner 1994, p. 100).

The aim of this paper is, however, to show that there is a problem with the above argument. I will start with some general reflections concerning explanation. It is not difficult to see that a certain effect may be correctly explained not only in terms of properties of the parts involved, but also in terms of higher-order properties (Pettit 1993, pp. 32-42; Pettit and Jackson, 1990). It is not wrong to say that the bending of an eraser is explained by its elasticity. The elasticity of the eraser is relevant to its bending because elasticity is related to lower-order properties which are causally efficacious, that is related to the molecular structure of the eraser. Admittedly, the elasticity has a role in the explanation of the bending in so far as the molecular structure is the direct efficient cause. So, the

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midway between power and action. See St. Thomas Aquinas, 'Treatise on Habits' in *Summa Theologica* Part I of the Second Part, especially QQ 49-54.

<sup>2</sup> This point played a central role in the traditional treatment of habits. It was often expressed by saying that reason must be behind the formation and maintenance of every habit.

<sup>3</sup> I am working here with a realist view of dispositions. Antirealist objections usually take the form of Gilbert Ryle's argument. He held that dispositions are just ways of talking: 'Dispositional statements are neither reports of observed or observable states of affairs nor yet reports of unobserved or unobservable states of affairs' (Ryle 1949, chapter 5). To see why this is mistaken, one can recall how we all detect dispositions just as we detect other things, by certain events. Hence the manifesting event for fragility of a glass is the event of its breaking on dropping. The manifesting event for Peter's habit of walking the dog in the evenings is the event of seeing him often walking the dog in the evenings. This is how we detect dispositions. They are independent of us as observers. What we detect is in fact the truth-maker of certain conditionals. See Mellor 1974.

question arises: if the molecular structure has done the explanatory work, why does one need the elasticity? What is the specific contribution of elasticity in the explanation? The contribution is most evident when we are unsure of the molecular structure. The elasticity of the eraser, as a dispositional state, is distinct from the molecular structure: the latter is just one particular realiser state. The explanation in terms of the dispositional state is acceptable because it is saying that the eraser has a *certain kind* of molecular structure and not another. The main idea here is that a dispositional property can be causally *relevant* even though it is not causally *efficacious*. If a dispositional property is causally relevant, then it can form part of an explanation.<sup>4</sup>

These insights on explanatory relevance can be used to show how using habits in explanations of regular behaviour is not vacuous. Replace the dispositional state in the previous example by the habit and replace the lower-order state by one of the causal chains leading to the specific behaviour pattern we are considering. Hence, instead of elasticity we now have a habit. Instead of the particular molecular structure of the eraser material we now have one of the possible causal chains leading to the observed behaviour pattern. Consider an element of behaviour in need of explanation. Suppose we ask: why does this student always start the day by doing stretching exercises? One straightforward and simple explanation is: because he has a habit. It is not because he is worried about anything in particular; it is not because he thinks his neighbour is using a telescope to watch him to check that he is regular. He does it because he has a habit of doing it. A lower-order property can also supply an explanation: the student behaves this way because he has gone through a causal chain, C1, consisting of, say, the way his mother used to make him wake up early and go to bed early, and the way this was reinforced by the kind of boarding school he used to attend as a teenager, and so on. In line with what was said above, one should hold that both answers are relevant explanations. Neither can replace the other completely and neither is vacuous. When we say that he has a habit, we are saying that one of a particular set of causal chains is operative. We are saying effectively that either C1 or C2 or C3 or ... is in operation.

Moreover, the dormitive-virtue problem is not always as devastating as it seems. It can in general be escaped by making the explanation acceptable in other ways than by just repeating the explanandum (Mellor 1974). For example, the explanation E: 'sedatives put one to sleep because they have a dormitive virtue' is condemned because it appears equivalent to 'sedatives put one to sleep because they put one to sleep'. But this explanation E will be made acceptable if we add that sedatives must differ chemically from other substances. The explanation thus becomes testable in ways other than by observing the effect the substances have of putting one to sleep. Likewise, the explanation 'this window-pane bends because it is elastic' becomes respectable if we add the fact that the elasticity of this windowpane is testable by other means than bending it. Likewise, again, the explanation 'Peter does X because he has a habit of doing X' becomes acceptable through the fact that Peter's habit of doing X is detectable by other means than seeing him do X often. We detect Peter's habit, say, of walking the dog in the evenings, either by seeing him doing it often, or by seeing him get grumpy and restless if he stays indoors all day. Moreover, saying that Peter has a habit of doing something contrasts with saying that Peter has a compulsion of doing it. Habit-talk has the extra information that the action-property we are referring to is of a special kind, namely of the kind that Peter can change if he really wants to.

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<sup>4</sup> I am not making the strong claim that the only way for something to be relevant it must be causally relevant, as Pettit seems to be doing in Pettit 1993, p. 32. I need only the weaker claim that if something is causally relevant then it is certainly relevant.

This shows that it is possible to use habits in proper explanations. In some situations, explanations using higher-order properties like habits are not only possible but even advantageous. I have two main reasons for this claim, especially as regards the use of habits.

First, given the complexity of the causal ancestry of behaviour patterns, it seems plausible to hold that dispositional-state explanations play a more significant role in the habit case than in the eraser case. When it is behaviour patterns that are to be explained, the intricate causal chain leading to the effect we see in the person's way of acting is difficult to determine, if it can be determined at all. The interaction that life in society involves makes it very difficult to conceive of a determinate causal chain leading to a behaviour pattern. When it is particular empirical events that are to be explained, our scientific models sometimes allow us to consider ideal situations where intruding causes are minimised. Hence, we can easily picture to ourselves a particular molecular structure that allows bending. But it is more difficult to isolate a similar picture consisting of the causal ancestry of the element of behaviour consisting of doing stretching exercises on waking up. Hence explanations using higher-order properties become more and more acceptable as the complexity of the explanandum becomes more and more difficult to handle.

Secondly, physics is often seen as a model of what proper explanation should be like. But even explanations in physics do not always give preference to explanation in terms of lower-order properties over explanation in terms of higher-order properties. It is true that most explanations in physics do involve an attempt at reaching an explanation in terms of a lower-order property. Such explanations seem more convincing, and therefore more worthwhile. In classical mechanics, higher-order relations could be reduced to lower-order relations. Many statistical relations, like temperature in the kinetic theory, were shown to be equivalent to the causally connected propositions of mechanics. In this case, a higher-order property is simply a term which is used when we are ignorant of all the micro-properties that give rise to the effect we want to study. However, we should recall the interesting and significant change in the status of explanation from classical to modern physics. On the more popular interpretation of quantum mechanics, not all changes require explanation. Discontinuous action, annihilation of elementary particles and the radioactive decay of nuclei are all taken to be basic. They need no explanation. Here, higher-order properties are not terms used when we are ignorant of hidden causal chains that would, if known, give the definite explanation. Higher-order properties are sometimes all there is to say: they supply a complete description. What is relevant to say about a radioactive substance is that, after a specific number of years, half of its atoms disintegrate. The question why this atom rather than that atom disintegrates first is considered irrelevant. This shows that explanations in terms of lower-order properties are no longer needed in certain domains. All the explanatory work is done by higher-order properties. The moral here is that even explanations in physics, a discipline which is often seen as a model of what proper explanation should be like, do not always give preference to explanation in terms of lower-order properties over explanation in terms of higher-order properties.

Those who accept the above argument will also see that reducing habits to individual causal chains is wrong. Although two persons may have arrived at their similar behaviour patterns by different routes, through different causal chains, their disposition is the same. A multiplicity of different routes of acquisition does not necessarily mean different thing acquired. If, as the above discussion demands, 'habit' refers to the acquired disposition, it makes no sense saying that a token behaviour pattern is *caused* by the habit. In general, dispositions do not cause anything: the solubility of salt, say, does not *cause*, but *is manifested by*, the disappearance of salt crystals in water. This does not mean that dispositions are causally irrelevant; they are indeed causally *relevant* because they are a first indication of what is causally *efficacious*. We should hence say that the habit is *manifested* by a

token behaviour pattern. Just like all other dispositions, a habit has activating conditions that render its manifestations possible. The correct way of talking about habits is in terms of manifestations and activating conditions not in terms of causal chains.

Hence, if eliminativists argue as suggested here, they cannot succeed. To this extent, by the added generality gained through the consideration of habits, the case for folk-psychology has been strengthened. If you do something often and in a way which appears settled, your folks shouldn't feel at all old-fashioned when describing you as having a habit.<sup>5</sup>

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<sup>5</sup> I am grateful to Peter Lipton, Philip Pettit, and D. H. Mellor for comments on earlier drafts of this paper.