

## Teaching, intention based research and physicalism

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### ABSTRACT

Some philosophers have argued that teaching cannot be understood except in terms of human intentions. I shall argue that Quinean arguments for the externalization of empiricism undermine the value of treating teaching as an intentional act. I shall suggest firstly, that the methodology for identifying and distinguishing intentions undermines the basis of appealing to intentions to account for behaviour in the first place, and secondly, that the conjunction of one important kind of intentional explanation with physicalist causal accounts of human behaviour is incoherent.

Some philosophers have argued that teaching cannot be understood except in terms of human intentions. P. H. Hirst, for example, argues that a correct analysis of the claim 'X is teaching' must (logically must) include an account of X's intentions. According to Hirst "[i]f one is not going into the classroom to bring about learning, if that is not the intention, then one cannot, logically cannot, be teaching".<sup>1</sup> Similarly, some philosophers have thought that the essential difference between indoctrination and teaching is best characterized in terms of differences in intention rather than differences in overt practices.<sup>2</sup> Recently D.C. Phillips has gone further, urging that the analysis of 'teaching' as an intentional act be used to guide educational research.<sup>3</sup> According to Phillips, and a host of others, all descriptions of human actions given in simple behavioural terms are in principle inadequate as accounts of what people are doing.<sup>4</sup> If ever we are to make useful predictions about successful teaching strategies we must consider teachers' intentions.

In what follows I shall argue that Quinean arguments for the externalization of empiricism undermine the value of treating teaching as an intentional act. I shall suggest firstly, that the methodology for identifying and distinguishing intentions undermines the basis of appealing to intentions to account for behaviour in the first place, and secondly, that the conjunction of one important kind of intentional explanation with physicalist causal accounts of human behaviour is incoherent.

As everyone knows, and as Phillips makes abundantly clear, there is a fundamental problem with appeals to intention: put simply, we cannot observe a person's intentions. Intentions, like molecules, are unobservable. What advantage is to be had, therefore, in invoking unobservables to inform our account of what makes for more effective observable teaching practices? If Quine is right the case for molecules in physical theory turns largely on the fact that their supposition greatly simplifies such theory. (See Quine, 1960b, p. 246). Our being able to confirm predictions concerning observables, made on the basis of physical theory thus simplified, functions as confirmation of molecular theory.<sup>5</sup>

On the other hand Phillips bases his case for positing intentions on a much used Wittgensteinian argument which may be elaborated as follows. The same item of human behaviour may be described in non-equivalent ways. For example, my arm's going up may be variously described as an involuntary movement, a Nazi salute, or "an attempt to catch a troublesome mosquito".<sup>6</sup> Although behaviourally identical, these actions are all different in terms of how they may be explained and predicted. They are therefore different in ways that matter. As the above examples indicate, however, the crucial difference among behaviourally identical actions can evidently be nothing more than a difference in the intention with which the act was performed. Taking account of intention is therefore important in the explanation and prediction of human behaviour.

Unfortunately, this argument assumes that we already possess knowledge of differences in intentions. But, of course, for purposes of proffering advice and counsel in teaching we need to be able to individuate the various acts of teaching in the required way; that is, we need a knowledge of the relevant intentions upon which the individuation of actions depends. The trouble emerges once we realize that our only basis for individuating intentions, ultimately, is human behaviour. That is, our evidence for supposing a person to have one intention rather than another, inasmuch as we have evidence at all, is grounded in observation. Wildly varying intentions that forever remain unreflected in all human behaviour are methodologically idle. If, however, our evidence for differences in intentions were restricted exclusively to items of teaching behaviour, then appeal to intention in this context would collapse altogether.

Fortunately, there is no reason why we cannot look to whatever behavioural clues we please if we think it will be of help in determining a person's intentions. At any rate Phillips seems to accept this, seeing the task ahead as that of identifying the observable, inter-subjective behavioural cues that will best reveal a person's intentions. What worries him is that a certain unreliability invests all the obvious sources. For example, he is rightly cautious about accepting what people state as their intentions, and he speculates in useful ways on possible causes of deception and ignorance. The problem of unintended consequences occasions a similar caution about inferring intentions even from quite simple behaviour. Nevertheless, despite these and other difficulties, Phillips thinks that "[i]ntention-oriented research is worth doing..."<sup>7</sup>

Phillips and others, however, have overlooked a problem more serious than just the threat of an endemic uncertainty. The whole business of attributing intentions on the basis of behavioural evidence is something about which there is really no fact of the matter. For in trying to correlate cues with intentions what on earth could possibly count as having got the correlation right? If all knowledge of intentions resides ultimately in some or other set of observations it makes no sense even to inquire of these observations whether they "really" correspond to this rather than that intention. If an answer to this epistemic question requires that we be first able to match up observables then the question outruns the capacity of our methodology to provide an answer.<sup>8</sup> In the case of teaching acts what we have at our disposal is a person's teaching behaviour and any observable clues, including behaviour antecedent and subsequent to this teaching behaviour, that may be relevant to our account of it.<sup>9</sup> But for positing intentions this is all anyone has to go on. The same applies to our initial learning of the intentional idiom. We are coached into the ways of this vocabulary in suitably public circumstances. Appeal to intention does not therefore provide a source of knowledge over and above what is already available to the behaviourist.<sup>10</sup>

If we assume that a person's behaviour is caused then what we are after ultimately is, in the pattern of modern materialism, a set of reliable psychophysical laws that will link one item of behaviour to another in the same way that laws in physics integrate disparate observations into an orderly flux. If the existence of unobservables such as molecules -can be sustained on the basis of their contribution to simplifying our account of observables, can the same be said for intentions? Does the supposition of intentions integrate disparate items of human behaviour in a way that enhances explanation and prediction? The trouble with asking this question within a physicalist

causal framework is that, in terms of explanation and prediction, intentions are not something distinct from the underlying physical mechanisms that causally link items of behaviour.<sup>11</sup> In this context intention talk, where it is useful at all, functions as a kind of promissory note, going proxy for underlying mechanisms yet to be explained.<sup>12</sup> As should be clear, however, in this context, it is in the interests of good science to progressively eliminate intention talk rather than to champion it.

Phillips rightly criticises ‘black box’ behaviourism and correctly applauds the taking into account of factors internal to experimental subjects.<sup>13</sup> His mistake occurs in championing intentions as the important internal factors. For the physicalist, a better candidate would be the fine grained physical properties of human subjects. This suggestion successfully meets what Phillips takes to be “the strongest argument that exists in the philosophical literature for the necessity to take ‘inner’ variables such as intentions beliefs, and so forth into account”<sup>14</sup> namely, the Wittgensteinian argument I sketched earlier. For it is not unreasonable to suppose that there exist antecedent fine grained electro-chemical neuro-physiological differences to the actions involuntarily raising an arm, giving a Nazi salute, and attempting to catch a mosquito.<sup>15</sup>

Some philosophers challenge this physicalist programme for eliminating intention talk by arguing that appeal to intention cannot in principle be eliminated from adequate descriptions of human behaviour. For example, R. S. Peters argues that there are two fundamentally different, logically distinct modes of explanation. According to Peters “[t]he paradigm case of a human action is when something is done in order to bring about an end”.<sup>16</sup> In accounting for human action we therefore need a “rule following purposive pattern of explanation”<sup>17</sup> not a causal story. Causal laws “to not give sufficient explanations of human actions, of what human beings do deliberately, knowing what they are doing and for which they can give reasons”.<sup>18</sup> The point is that the presence of identical causes is no guarantee of identical outcomes. If an agent’s reasons or intentions remain unreflected in the total causal fabric in which the agent is otherwise enmeshed, a causal account, no matter how complete, is in principle inadequate as an account of human action.

Refuting this dualistic view of explanation is a complex task and one I shall not attempt here. I can illustrate, however, with the aid of an example, where I think the main trouble lies. Suppose, in a certain teaching situation, X raises a hand intending, we may say, to signal quiet. Suppose further, that our account of X’s hand raising in terms of X’s intentions is logically distinct from any causal account we may give of X’s hand going up. But X’s hand is a physical object thoroughly enmeshed in X’s causal field. If X’s muscles, bones and nerves do not have familiar physical properties and behave in familiar physical ways, X’s hand is not going to go up not matter what X intends. Indeed, the physically specifiable forces to which X’s hand is subject may cause it to shoot sideways at just the time when X intends. it to go up. The problem for the dualist is to explain why we should expect otherwise. Given this logical distinctness of causal explanation and intentional explanation why should we ever expect X’s body, a physical object subject to quite complex but nonetheless physical forces, to behave as X intends? The answer, of course, is that we should not expect such a coincidence, at least not on these premises. For the dualist, such a coincidence is inexplicable. (See Strike<sup>19</sup> for more on this argument.)

Since intention talk, when grafted onto a systematic physicalism, does not cohere as an autonomous domain of discourse, the case for intention based research and an intentional analysis of ‘teaching’ is simultaneously a case for putting the Cartesian ghost back into the machine. Given the current state of our methodology for discerning the behaviour of ghosts, averting the road to ruin will require more than just good intentions.

## Notes and references

1. Hirst, P.H., “What is Teaching?” in Hirst, P.H., *Knowledge and the Curriculum*, Routledge and Kegan Paul, London, 1974, 106.

2. For examples, see Snook, I., (ed.) *Concepts of Indoctrination*, Routledge and Kegan Paul, London, 1972.
3. Phillips, D.C. "Perspectives on Teaching as an Intentional Act", *The Australian Journal of Education*, Vol. 25, 99-105.
4. Much work in the philosophy of action is predicated on this claim. For a sample, see White, A.R., (ed.), *The Philosophy of Action*, Oxford University Press, Oxford, 1968.
5. Quine argues this point in "Posits and Reality", in Quine, W.V.O., *The Ways of Paradox and Other Essays*, Harvard University Press, Cambridge, (revised and enlarged edition), 1976.
6. Phillips, op.cit., 101.
7. *ibid.*, 105.
8. The argument here is parallel to Quine's objection to meaning and his arguments for the indeterminacy of radical translation: "to accept intentional usage at face value is ... to postulate translation relations as somehow objectively valid though indeterminate in principle relative to the totality of speech dispositions. Such postulation promises little gain in scientific insight if there is no better ground for it than that the supposed translation relations are presupposed by the vernacular of semantics and intention". Quine, W. V. O., *Word and Object*, M.I.T. Press, Cambridge, 1960, 22.
9. Naturally, this will include what the teacher reports as her/his intention.
10. I am not, of course, suggesting that there is some kind of one to one mapping of intentions onto behaviour. One of the consequences of the foregoing argument is that no such correlation is warranted. The methodological parallel to discerning intentions is the task of determining what a native really means by a foreign utterance. As Quine puts it: "...the arbitrariness of reading our objectifications into the heathen speech reflects not so much the inscrutability of the heathen mind, as that there is nothing to scrutate". Quine, W.V.O., "Spreading of Objects", in Quine, W.V.O., *Ontological Relativity and Other Essays*, Columbia University Press, New York, 1969, 5.
11. This is, of course, token physicalism. The above Quinean argument rules out type physicalism. My concern is to eliminate the intentional idiom from explanation, not to provide a set of correspondence formulae by which the intentional may be 'reduced' to the physical. In any case, the arguments of Fodor and Putnam seem to me to be decisive against type physicalism. See Fodor, J. A., *The Language of Thought*, Crowell, New York, 1975 and Putnam, H., "The Refutation of Conventionalism", *Nous*, Vol. 8, 25-40.
12. See Quine, W.V.O., *The Roots of Reference*, Open Court, La Salle, 1974, 8-15, for analogous remarks on disposition talk in general.
13. Phillips, op.cit., 99-100.
14. *ibid.*, 100.
15. Since I have been misunderstood on this point it should be emphasised that these "fine grained electro-chemical neuro-physiological processes" are not the correlates of particular intentions.
16. Peters, R.S., *The Concept of Motivation*, Routledge and Kegan Pual, London, 1958, 4.
17. *ibid.*, 7.
18. Benn, Sol., and Peters, R. S., *Social Principles and the Democratic State*, George Allen & Unwin, London, 1959, 199-2000
19. I owe this formulation to Strike, K. A., "Freedom, Autonomy and Teaching", *Educational Theory*, Vol. 22, 262-277.