Elijah Millgram, *Practical Induction*. Cambridge, MA & London, U.K.: Harvard University Press, 1997. Pp. viii and 184.

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Many working on practical reason are instrumentalists about practical reason. They hold that practical reasoning proceeds from desires immune to revision. Reasoning about action is taken to be means-end reasoning not revisable by other types of reasoning. So, according to the instrumentalist, all practical reasoning is reasoning which results in a practical judgment, an intention to act, or an action, and explains action by invoking desires and beliefs about how one may satisfy one's desires. Against this backdrop of the received wisdom regarding practical reasoning, Elijah Millgram proffers and ably defends an alternative to instrumentalism.

Millgram calls his alternative *practical induction*. He argues that practical induction is a legitimate, indispensable form of inference—the practical analog of theoretical induction. Unlike instrumentalism, practical induction is not exclusionist. Millgram never claims that it is the only legitimate form practical reasoning takes. Means-end reasoning is only one form of practical reasoning; it has no legitimate claim to being the only kind of practical reasoning.

Regarding the nature and importance of practical induction, Millgram writes that, "Like the more familiar forms of inductive reasoning, practical induction moves from instances to generalizations, and, also like them, it bottoms out in experience" (p. 6). In order to engage in practical reasoning we must be able to learn what to care about from experiences given that we often encounter new situations in which "the desires, aims, and interests we already have are too often suddenly obsolete" (p. 6). Practical inferences get their premises from the traditional sources often relied on in theoretical reasoning—experience/observation and testimony. Finally, by learning from new circumstances and employing practical induction we are able to preserve and project unified agency.

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Millgram focuses on the case against instrumentalism in chapter 2. He argues that we cannot simply desire at will. On the instrumentalist view, means-end reasoning fails "because it requires practical justification to bottom out in desires that themselves cannot involve further backward-directed commitments" (p. 39). Millgram adds that, "because desires figure in practical reasoning as bases for inference, they must involve backward-directed inferential commitments" (p. 39). Lest one think that hierarchical theories of motivation enable one to avoid this problem with instrumentalism, Millgram notes that second-order desires will not suffice as a substitute for such backward-directed inferences. This follows because, if we cannot desire at will, as Millgram contends, and one can only indirectly acquire desires when the appropriate conditions obtain, second-order desires "cannot account for the manageability of the desires we turn out to have" (p. 39). All the work that is done in managing our desires results from our backward-directed inferences.

Chapters 3 and 4 focus on the contribution practical induction makes to the unity of agency and the indispensability of practical induction for the unity of agency, respectively. Chapter 5 explains why the argument of chapters 3 and 4 works. Chapter 6 treats the role of observation and the empirical nature of practical reasoning by focusing on the role of emotions, specifically, pleasure. In chapter 7 Millgram explores the function and indispensability of testimony, with a fascinating and stimulating treatment of the nature of friendship and the reliance on testimony in practical reasoning. Chapter 8 concludes the book by considering skepticism about the unity of agency. Millgram suggests that skepticism about diachronic unity of agency may be a live option while skepticism about synchronic unity of agency is less likely so. In the remainder of this review I will focus on the case offered in chapters 3-5 for practical induction.

Millgram introduces practical induction as the analog of theoretical induction in the practical domain (p. 43). When one learns from one's experience that something is worth doing again, having generalized from particular experiences, the pattern of inference is an instance of practical induction. So, I may have had many pints of Guinness Stout in the past, my experiences of consuming them having been enjoyable. Each pint was worth drinking. I conclude that Guinness Stout is worth drinking. My conclusion may guide my future or present actions. Millgram writes as follows about such reasoning. "A practical induction proceeds from practical judgments at a relatively lower level of generality to a practical judgment at a relatively higher level of generality that subsumes the more particular practical judgments as instances" (p. 45).

But is practical induction really practical reasoning? In his seminal essay, "Practical Reasoning," Gilbert Harman offered the minimality requirement on practical reasoning. The minimality requirement favors theoretical reasoning over practical reasoning in instances where a conclusion can be reached by theoretical reasoning alone.² One may argue that the results that allegedly obtain using practical induction are achieved by employing theoretical reasoning. That is, practical induction is reducible to theoretical reasoning. Consider the example of my judgment regarding Guinness Stout. It may be the case that, on the grounds of my previous experiences of imbibing Guinness at my local pub, I am predicting that I will enjoy drinking Guinness. In turn, I may employ what I have learned from my experiences in an instrumentalist pattern of practical reasoning. So I may find myself with the sudden desire to drink a beer of a certain sort. I recall that I've enjoyed Guinness Stout, and via a pattern of theoretical reasoning, predict that if I drink a pint of Guinness I will satisfy my desire for just such a beer. I conclude that I ought to get down to the pub and order a pint of Guinness. I had a desire for a certain type of beer, and, on the grounds of my previous experiences, predict that I will enjoy drinking a pint of Guinness Stout. The belief plays the role a belief normally would in an instrumentalist pattern of reasoning. But it was arrived at via theoretical reasoning that concluded with a prediction-predictions, it would seem, being the province of theoretical reasoning. Furthermore, the instrumental reasoning proceeded from a desire that matches the conclusion of my theoretical induction.³

Harman's minimality requirement is restricting practical reasoning, I suspect to the extent that inductive reasoning is solely the domain of theoretical reason⁴—or perhaps all practical induction

is reducible to theoretical induction. Millgram agrees that sometimes such reconstructions that take what is going on to be specifically theoretical induction are correct. However, he suggests that one who reduces practical induction to theoretical induction assumes two burdens. First, she must produce "a purely theoretical inductive conclusion capable of interlocking with the posited desire" (p. 102). Second, she must produce "a desire capable of interlocking with the conclusion of the theoretical induction" (p. 102). Such desires, Millgram argues, are not there to be had. He writes that, "the proposed factoring of practical induction into theoretical induction and instrumental reasoning requires the agent to have available desires whose objects match the conclusions of his theoretical inductions" (p. 103). Irreducible practical induction is needed because of the ways in which new domains of activity in which we must organize our plans, decisions, and actions open themselves up to us. Specifically, we cannot have desires general enough to cope with such new scenarios in which we employ practical reason. "So when a theoretical induction in a newlyopened domain concludes, there will be no matching desire waiting to meet it" (p. 103). So, if the reductionist is correct, we are unable to form plans and initiate coherent patterns of agency in barely explored spheres of activity. But we can employ irreducible practical induction to get us a method that works, enabling us to deliberate, plan, and perform actions in new scenarios. Millgram writes that, "Our world is full of new and surprising things. The only way to come to understand how they matter for us is to let experience teach us. That is why we have to use practical induction" (p. 103).

Whether or not this adequately addresses the reductionist argument, I am not certain. It seems that one who insists on reducing practical induction to theoretical induction may still have some means of defending her views. For one, going back to the role of theoretical reasoning in making predictions, one may argue, as Harman does, that it simply is not the role of practical reasoning to reach conclusions that are predictions. And it seems that at least some of the conclusions of putative practical inductions are predictions. Practical reasoning, on the other hand, should conclude with a practical judgment, an intention to act, or an action. But I will not take this problem up further here. I will leave it to the reader to assess Millgram's argument and the arguments offered in defense of instrumentalism or against the sort of view defended by Millgram. There are no easy solutions to such problems; and Millgram does not pretend to have provided anything like an "easy" solution.

The strongest selling point of Millgram's theory of practical induction is in its providing an account of unified agency. When one deliberates about how to act one is trying to address a practical question, viz., "What should I do?" (p. 49). Millgram writes that, "Now in the course of trying to answer this question, one may suppose that there is an I that could act on an answer to it. After all, if there were not, the question would have no practical point" (p. 49). One must assume in practical deliberation that one is an acting self—such an assumption being legitimized by the "dialectical context" of practical deliberation (p. 49). Thinking about what one should do only makes sense if there are things one is able to do. The concept of agency involves the notion of being able to exercise a certain type of power in a context of genuine options. And in the course of practical deliberation, one can assume that one is a unified agent, or at least unified enough for practical deliberation to have a point (p. 50). So practical induction, in Millgram's own words, is legitimate in the following sense: "its effectiveness is a precondition for unity of agency, from which it follows that, within the context of practical deliberation, it can be treated as a legitimate form of inference. That is, when you are trying to answer a practical question, you are within your rights using practical induction to do so" (p. 50).

Millgram takes chapter 3 to sketch an account of the unity of agency—which he takes to consist in our ability to "square our conflicting concerns, interests, and priorities" (p. 50). How we do this depends on connecting judgments we obtain via practical induction. So Millgram sets himself to considering what intelligent choice looks like from the first-person perspective, thereby filling out the picture of the unity of agency from the inside out. This requires taking practical inferences to be defeasible—such defeasibility requiring that one bring to bear salient competing considerations when necessary. In chapter 4 Millgram argues that

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our dependence on practical induction is not optional. He claims there is no other source for the connecting judgements that will unify agency. Finally, in chapter 5, Millgram explains why we have no alternative to practical induction, shifting perspective, developing an account of agency from the outside in. So he works from the point of view of one designing an agent capable of coping with the sorts of situations in which human beings find themselves. Altogether, Millgram offers his readers a tightly argued and wellwritten monograph in defense of an alternative to instrumentalism. Practical Induction is a delight to read. Millgram draws freely on sources in other disciplines, including fiction. His examples are often entertaining and serve to make his case clearer and more compelling. This book should be read by anyone doing work on practical reason. Philosophers doing work in the philosophy of mind, the philosophy of action, and moral psychology, as well as those doing work in decision theory and epistemology will benefit from reading this book. Millgram breaks new ground in his book and deserves the attention of a wide audience.

Notes

¹ Originally published in the *Review of Metaphysics* 79 (1976): pp. 431-463. Reprinted in Alfred R. Mele, ed., *The Philosophy of Action* (Oxford: Oxford University Press, 1997), pp. 149-177. I will refer to the latter.

² Ibid., pp. 169-170.

³ It is worth noting that in later writings, specifically, in *Change in View* (Cambridge, MA: MIT Press, 1986), Harman concedes that, "the revision of belief is sometimes 'part of' practical reasoning" (p. 113). But the view he adopts is different in important ways from practical induction. He does take theoretical and practical reasoning to be intertwined (p. 113). The objection to Millgram in the text of this book review could be taken to be forwarding just such a notion.

⁴ See Harman, "Practical Reasoning," p. 149.

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