

ON MATHEMATIZING ETHICS

Włodzimierz Rabinowicz, Universalizability: A Study in Morals and Metaphysics, D. Reidel, 1979, pp. 190

This volume has recently figured in a rather caustic exchange between P.T. Geach and R.M. Hare.\* Geach quotes Hare as asserting that certain views about morality can be refuted by a "completely formal account of the logic of the moral concepts which does not involve any substantial moral commitment" and challenges him to cite an example of such a formal and effectual "logic" of morals. In reply Hare accuses Geach of misunderstanding his use of the term 'formal', admits that deontic logic "awaits its Aristotle," but cites Rabinowicz's Universalizability as an example of work which, "so far as I understand it, could form a part of the system Geach asks for."

I find Hare's hopes for Universalizability strangely misplaced. This is not really a book about the logic of morals. Only one sentence of formal deontic logic occurs in the book and there is no discussion of informal moral reasoning. More importantly, Rabinowicz deals quite explicitly with principles that involve "substantial moral commitment." The book does bring mathematics to bear on ethics, however, in a more sophisticated way than has been attempted heretofore and it serves as a good example of the benefits and dangers of mathematizing ethics.

The central notion under investigation is, as the title indicates, "universalizability," which Rabinowicz characterizes as "a claim that moral properties of things (persons, actions, states of affairs, situations) are essentially independent of their purely 'individual'

aspects." Rabinowicz is concerned with the problem of finding conditions on models for deontic logic which expresses this principle. So, in fact, the "things" whose moral properties he discusses are members of the domains of such models. He calls these "situations." Two kinds of universalizability principles are examined. According to the first, situations which share all qualitative properties must have identical moral properties. According to the second, situations which share all morally relevant qualitative properties must have identical moral properties. The book is divided into four parts. In Part I the relation (C) of sharing all qualitative properties and the relation (R) of sharing all morally relevant properties are taken as primitive as well as the deontic alternative relation, D. (A situation a is a deontic alternative to a situation b if all moral obligations in b are discharged in a.) A number of "universalistic" conditions on C, R and D are discussed. Condition u:  $aCb \& aDc \rightarrow \exists d(bDd \& cDd)$  is shown to be superior in certain respects to the others.

In Part II, Rabinowicz avoids taking the relation C as primitive by applying Kit Fine's notion of possible world automorphisms. An automorphism is a function which assigns worlds to worlds and individuals to individuals in such a way that the relations among  $a_1, \dots, a_n$  in  $w$  are the same as those among  $f(a)_1, \dots, f(a)_n$  in  $f(w)$ . In other words, an automorphism maps worlds onto qualitatively identical worlds. A natural way of expressing the principle of universalizability, as a condition on deontic models is to say that D is invariant under automorphisms.

\* 'On a Claim of Hare's' and 'On a Misunderstanding of Geach's', both in Analysis, vol 41 (Jan 1981), pp 63-64

Rabinowicz compares this condition to the ones discussed in Part I and provides a classification of "non-universalistic" moral theories by dividing the models which fail to meet the condition into various categories.

The centerpiece of the book is Part III, which explores the connection between universalizability and the identity of indiscernables. Rabinowicz argues that someone who subscribes to the universalizability thesis is faced with a dilemma. The relevant similarity version of the thesis is suspect because no good account of relevant similarity has been offered. The other version, according to which minimal properties are shared by qualitatively identical things, is trivial if one believes that there are no distinct, qualitatively identical things. Rabinowicz's solution to this dilemma is to formulate yet another universalizability condition. A "universal" proposition is, roughly, one that can be expressed by a sentence containing no proper names. Condition uu says that if a proposition p is universal, then so is the proposition that p is obligatory. Rabinowicz shows that, under a condition called "anti-Leibnizeanism" and a plausible definition of C in terms of universal propositions, uu is equivalent to the condition u described in Part I. Furthermore, uu and the identity of indiscernables, together with certain weak conditions, imply something clearly non-trivial. Since anti-Leibnizeanism is the only reasonable position open to those who reject the indiscernability of identicals, and since uu is formulated without appeal to relevant similarity, the universalist's dilemma, is solved.

In the fourth and final section, Rabinowicz suggests that conditions like uu can express universalizability principles in domains other than ethics. His prime example is causality. The idea that similar causes have similar effects can be expressed by saying that the proposition that p causally implies q is universal whenever p and q are. Furthermore, such a uu-like principle can be derived from an apparently innocuous condition about the universality of what Rabinowicz calls "intensional propositions" and a condition which says that the extensions of universal intensional propositions are universal propositions.

Rabinowicz's approach to the principle of universalizability is puzzling. He does not seem to be particularly interested in the principle's effect on the standard kinds of deontic logic. The one deontic formula mentioned in the book contains an operator with the rather bizarre reading "it is true in all qualitatively identical worlds that...". For the most part Rabinowicz seems to be interested merely in obtaining a precise and perspicuous characterization of the principle of universalizability. But if this is his aim, the use of deontic models seems singularly inappropriate. The alternativeness relation D is an artificial and abstruse example of a moral concept and the problems of understanding D carry over to conditions like  $aCb \ \& \ aDc \ \& \ \neg(cDa) \rightarrow (\exists d)(cCd \ \& \ bDd \ \neg(dDb))$ . At various places Rabinowicz adopts a familiar suggestion that D might be definable from two conceptually simpler notions, that of one situation being a possible alternative to another and that of one situation being better than another (according to the standards of a third). wDv holds if v is a possible alternative to w no worse

(by the standards of w) than any other. But this "definition" surely changes the meaning of D. It has, for example, the rather implausible consequence that no way of meeting all the obligations of a situation is better than any other way.

The deontic models framework engenders especially serious problems in the treatment of relevant similarity. Consider a few examples in which the relevant similarity condition seems to be invoked:

If it is wrong for a woman to abort a fetus conceived in rape then it would be wrong for her to disconnect a kidney-damaged violinist whose blood has been routed, against her wishes, through her own kidneys. (See J. Thomson, 'A Defence of Abortion,' Philosophy and Public Affairs, Vol 1 number 1, 1971.)

If it is morally permissible for the U.S. to build a nuclear arsenal to deter an attack from the Soviet Union, then it is permissible for Arab nations to build a nuclear arsenal to deter an attack from Israel. (See David B. Ottaway, 'Iraqi President Makes Arab Case for A-Weapons,' Washington Post June 25, 1981.)

Clearly the situations being compared in these examples won't be alike in all relevant respects. A violin player will have told more lies and made more promises than a fetus. When we say two situations are relevantly similar, we don't mean they share all moral properties, but only those relevant to a particular moral judgement. No matter how narrowly "situations" are construed, it is always possible for two situations to be alike with respect to one moral judgement and different with respect to another. Relevant similarity should not be construed as two place relation between situations, but as a three place relation involving situations and something else. *Otherwise we could simply talk about "moral" similarity instead of relevant similarity.* Despite the unfortunate choice of primitives, Rabinowicz's work

does illustrate some of the advantages a formal approach provides. First, it facilitates separating closely related ideas. In Part I, for example, Rabinowicz distinguishes nicely between universalizability and the notion that moral properties are "supervenient", i.e., grounded in non-moral properties. Again, in Part III we see that there is a whole family of distinct principles that might be labeled "indiscernability of identicals." Second, it facilitates consequence-tracing. Whether or not one accepts Hare's claim that logic can justify moral principles, it is clear that logic can tell us about the logical relations among them so that we know which collections of principles must stand or fall together. It is unlikely, for example, that mere philosophical reflection would lead one to conclude that rejection of Leibniz's Law implies the equivalence of Rabinowicz's two principles of universalizability. Finally, a mathematical approach can expose similarities in structure among diverse fields, eventually making possible a transfer of knowledge from one domain to another. This possibility is suggested (though not really developed) in Part IV where the relations between universalizability of obligation and causality are discussed. It might be mentioned that the notion of universalizability of not knowing has also received attention lately. (See J. Adler 'Skepticism and Universalizability', Journal of Philosophy Vol LXXVIII, Number 3, pp 143-156.)

The drawbacks of mathematizing philosophy are also exemplified in Universalizability. A moral philosopher is likely to be put off by the bewildering array of conditions, definitions, lemmata and theorems that constitute the book. The arguments are not really that difficult--no proof occupies more than a page and a half. But the concepts are

introduced at a dizzying pace--up to four or five definitions per page. Partly because of the choice of primitives, precision seems to come at the expense of clarity. One doesn't know exactly what to say about conditions like  $u$  and  $uu$  because they are less perspicuous than the vaguer English versions of universalizability they replace.

Let us return to the general question underlying the Geach-Hare debate: can logic, or more generally can mathematics, settle any moral issues? This question is hard to formulate precisely. If I have promised to pay someone a dollar for every pair of twin primes less than a million, then some mathematics will certainly be needed to determine my obligations. And, as Rabinowicz shows, mathematical methods can be useful in demarcating and comparing ethical principles. Nevertheless, I believe there is a sense in which mathematics and logic are neutral with respect to moral theories. At any rate, Rabinowicz's book does not provide an example of a moral principle justified or refuted by formal methods. There is no way to determine from reading the book what its author thinks about nuclear war, premarital sex, animal rights or any other moral issue. Nor is there any way to determine whether he subscribes to ethical relativism, utilitarianism, non-naturalism, ethical egoism or any other philosophical doctrine. In fact, nothing in the book reveals whether or not its author believes that the principle of universalizability is correct.

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