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# CONTRARY-TO-DUTY IMPERATIVES AND DEONTIC LOGIC

By RODERICK M. CHISHOLM

EXHORTATIONS often take the form: 'You ought to do *a*, but if you do not do *a*, then you must, by all means, do *b*.' Here we are concerned with what might be called "contrary-to-duty" imperatives: imperatives telling us what we ought to do if we neglect certain of our duties. The *rationale* of these imperatives is simply the fact that (1) most of us do neglect our duties from time to time and yet (2) it is reasonable to believe that we should make the best of the bad situations to which our misdeeds have led.

Our misdeeds generally create new duties ('You ought to keep the appointment, but since you are *not* going to keep it, then, by all means, let him know'); they may absolve us from some of our duties ('You ought to keep the appointment and buy the ticket now—but if you are not going to go there is no point in buying the ticket'); and possibly they may even transform our duties into actions which are wrong ('You ought to keep the appointment and tell him that you are coming—but if you are not going to keep it, then you ought not to tell him that you are coming').

A logic of science, which is to be of use to people who are not omniscient, should be able to deal with contrary-to-fact conditionals. And a logic of conduct, or "deontic logic", which is to be of use to people who are not morally perfect, should be able to deal with "contrary-to-duty" imperatives. I believe, however, that most of the deontic logics, which have been developed in recent years, cannot be applied to situations in which we wish to assert such imperatives. I refer in particular to the systems set forth in the following works: Ernst Mally, *Grundgesetze des Sollens* (Graz 1926); G. H. von Wright, "Deontic Logic", *Mind*, Vol. 60 (1951); A. N. Prior, *Formal Logic* (Oxford 1955); and Alan Ross Anderson, *The Formal Analysis of Normative Systems* (New Haven 1956).<sup>1</sup>

2. One interesting feature of these logics is the use of statements affirming of certain conditionals that they are obligatory, or ought to be true—i.e., the use of statements of the form 'It is obligatory that if *a* then *b*', or, briefly, 'O (if *a* then *b*)'. Such statements are to be dis-

<sup>1</sup> In "Deontic Logic and Derived Obligation", *Mind*, Vol. 55 (1956), pp. 507–509, von Wright proposes a system of "relative" permission, prohibition, and obligation, which makes use of the primitive locution '*p* is permitted under conditions *c*', and which includes the "absolute" system criticized here. If the relative system were set forth so as not to include the older system, it would not be subject to the present criticisms.

I believe that the present criticisms do not apply to the system set forth by Hector Neri Castañeda. See his "Outline of a theory on the general structure of the language of action", *Theoria* XXVI (1960), pp. 151–182.

tinguished from conditionals in which the consequent affirms an obligation—statements of the form ‘If *a* then it is obligatory that *b*’, or ‘If *a* then *Ob*’.

The first point to emphasize is that the locution ‘O (if *a* then *b*)’, as it is interpreted in these logics, is *not* adequate for the expression of “contrary-to-duty” imperatives.

If the letters ‘*a*’ and ‘*b*’ are taken to stand for actions, then ‘O (if *a* then *b*)’ is interpreted in such a way that it is equivalent to ‘It is obligatory that one refrain from performing that joint act which consists in doing *a* and not doing *b*’—the “joint act” being the act one performs if and only if one does *a* and does not do *b*. Hence, if *a* is an act one ought *not* to perform, then, no matter what act *b* may be, we may affirm ‘It is obligatory that if *a* then *b*’. (A similar point holds, *mutatis mutandis*, when ‘*a*’ and ‘*b*’ stand for propositions or states of affairs.)

Let us suppose we wish to remind a potential thief of the duty to restore stolen property.<sup>1</sup> The locution of the obligatory conditional—‘It is obligatory that if you steal then you return the money’—is not adequate for what we want to say. For, if stealing is wrong, then this locution, ‘O (if *a* then *b*)’, interpreted in the way just described, *also* allows us to say ‘It is obligatory that if you steal then you do *not* return the money’, and, indeed, ‘It is obligatory that if you steal then you steal again and lead a life of sin henceforth’.

It is clear that we must use instead a conditional with an obligatory consequent and tell him ‘If you steal then it is obligatory that you return the money’. (We may also wish to tell him, if the need arises, ‘It is not true that, if you steal then it is obligatory that you steal again’.)

Von Wright’s deontic logic, in its original version, does not count as well-formed any conditional of the form ‘if *a* then *Ob*’. Hence I believe it is fair to say that his logic cannot be applied to situations in which it is essential to assert “contrary-to-duty imperatives”. But when such conditionals are allowed, as they are in the systems of Mally, Prior, and Anderson, then their use, to express such imperatives, gives rise to contradiction.

3. One example may suffice. Among the principles common to these logics are the following: (I) If it ought to be that *a* occur and if it ought to be if *a* occur then *b* occur, then it ought to be that *b* occur; and (II) it is not true to say, of any *a*, both that *a* ought to occur and that *a* ought not to occur.<sup>2</sup>

Let us suppose: (1) it ought to be that a certain man go to the assistance of his neighbours; (2) it ought to be that if he does go he tell

<sup>1</sup> “If a man shall steal an ox, or a sheep, and kill it, or sell it, he shall restore five oxen for an ox, and four sheep for a sheep.” *Exodus* 22:1.

<sup>2</sup> The formulation of these principles varies in accordance with whether the terms for obligation are taken to apply to actions, events, propositions, or states of affairs.

them he is coming; but (3) if he does not go then he ought not to tell them he is coming; and (4) he does not go.

By applying the first of the two principles above to (1) and (2), we may deduce that the man ought to tell his neighbours that he is coming. By applying the rule of detachment to (3) and (4), we may deduce that he ought not to tell them he is coming. But these two conclusions, when combined, are inconsistent with the second of the two principles above.

We may say, more generally, that the logics in question imply that any four statements of the following form are mutually inconsistent: (1) it ought to be that  $a$ ; (2) it ought to be that if  $a$  then  $b$ ; (3) if not- $a$ , then it ought to be that not- $b$ ; and (4) not- $a$ . But most of the situations in which we can assert counter-obligation imperatives are situations in which we can also assert a set of four such statements. For we may say, of almost every action  $a$ , whether or not it is obligatory and whether or not it is performed: it ought to be that if a man does perform  $a$  he be treated as responsible for the performance of  $a$ ; and if he does not perform  $a$ , then it ought not to be that he is treated as responsible for the performance of  $a$ .

4. Some of the principles of these logics have their analogues in the logic of necessity and possibility. If, for example, we replace the reference to obligation, in principles I and II above, by a reference to logical necessity, then we obtain true principles about necessity. But the deontic logics differ from the logic of necessity and possibility in the following respect (among others): from the fact that a proposition is necessary it follows that the proposition is true; but from the fact that an act is obligatory, it does not follow that the act is performed. Thus 'If it ought to be that  $a$  occurs, then  $a$  occurs' does not appear as a theorem in most of the logics mentioned.<sup>1</sup> But it is not entirely inaccurate to say that such a principle is *presupposed* by these logics, at least in the following sense: if the criticism I have made is sound, then the logics can be applied only in a world in which such a principle is true.

5. Ordinarily the rules of a game do not tell us how to proceed with the game after the rules have been violated. In such a case, we may: (1) go back to the point at which the rule was broken, correct the mistake, and resume the game; (2) call off the game; or (3) conclude that since one rule has been broken, others may now be broken, too. But these possibilities are not open to us when we have broken a rule of morality. Instead we are required to consider the familiar duties

<sup>1</sup> The exception being Mally. We might say that Mally made a factual mistake about the nature of the world. But his deontic logic may have been adequate to the world as he (mistakenly) conceived it.

associated with blame, confession, restoration, reparation, punishment, repentance, and remedial justice, in order to be able to answer the question: 'I have done something I should not have done—so what should I do now?' (Or even: 'I am going to do something I shouldn't do—so what should I do after that?') For most of us need a way of deciding, not only what we ought to do, but also what we ought to do after we fail to do some of the things we ought to do.

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## ACTS AND RELATIONS IN BRENTANO: A SECOND REPLY TO PROFESSOR GROSSMANN

By REINHARD KAMITZ

**I**N my article "Acts and Relations in Brentano: A reply to Prof. Grossmann" (ANALYSIS 22.4, March 1962) I drew attention to some serious errors concerning Brentano's semantics and theory of relations, which occurred in Prof. Grossmann's article "Acts and Relations in Brentano" (ANALYSIS 21.1, October 1960).<sup>1</sup>

In a recent article "Brentano's Ontology: A Reply to Mr. Kamitz" (ANALYSIS 23.1, October 1962) Prof. Grossmann tries to prove that my arguments, expressed in ANALYSIS 22.4, are for the most part not only based on a misrepresentation of his own criticism of Brentano, but also on a erroneous representation of Brentano's teaching itself.<sup>2</sup> I now wish to consider Prof. Grossmann's new arguments.<sup>3</sup>

In ANALYSIS 22.4 I reproached Prof. Grossmann with overlooking the fact that the word 'object'—in Brentano's opinion—is ambiguous. In ANALYSIS 23.1, page 20, Prof. Grossmann defends himself against this reproach, claiming that he tacitly took account of this important fact throughout his paper in ANALYSIS 21.1 and that he had used the

<sup>1</sup> Competent authorities in this field of philosophy have confirmed in letters and by word of mouth that many statements in Prof. Grossmann's paper in ANALYSIS 21.1 must be considered as serious misinterpretations of Brentano's teaching. Some of the most important letters I have sent to the Editor of ANALYSIS. Prof. Franziska Mayer-Hillebrand, one of the best authorities on Brentano and editor of Brentano's papers since the death of A. Kastil in 1950, herself invited me, some time ago, to correct the erroneous trains of thought contained in Prof. Grossmann's paper, as she—for reasons of time and health—could not do so herself. Anyway, my criticism, published in ANALYSIS 22.4, was thoroughly examined and endorsed by Prof. Mayer-Hillebrand, before I sent it to the Editor of ANALYSIS.

<sup>2</sup> For this reason I especially appreciate Prof. Mayer-Hillebrand's willingness to join the discussion in a last word to this article.

<sup>3</sup> Since the Editor of ANALYSIS informed me, that my new reply should in no circumstances exceed 2,000 words in length, I am forced to express my new arguments in the shortest possible way.