



## Some Alleged Differences Between Imperatives and Indicatives

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# M I N D

## A QUARTERLY REVIEW

OF

## PSYCHOLOGY AND PHILOSOPHY

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### I.—SOME ALLEGED DIFFERENCES BETWEEN IMPERATIVES AND INDICATIVES<sup>1</sup>

BY R. M. HARE

ANYBODY who studies imperative or deontic logic is bound to be very soon faced with the question of whether the logic or group of logics that he is studying differs radically from ordinary 'indicative' or 'assertoric' logic, or whether it can be accommodated, after a few relatively simple explanations, within the framework of ordinary logic. It would be foolish to pretend that this question can yet be settled. In this article I am going to maintain a less ambitious thesis: that several of the reasons which various writers have given for alleging differences between imperative and ordinary logic are based on misunderstandings. I shall divide these misunderstandings into two groups. The first can, I think, be removed by a straightforward application of Mr. Grice's recent work on what he calls 'implicatures'; and the second, by insisting on the distinction, often ignored, between ordinary singular imperatives, on the one hand, and 'ought'-sentences on the other. This important distinction is obscured by those systems of deontic logic which use the same symbol or operator for both purposes.

As an example of the first group of alleged reasons for thinking that imperative logic must be different, consider the following inference:

Post the letter.

∴ Post the letter or burn it.

So far as I know, this example was first used in an article by Professor Alf Ross (*Ph. of Sci.*, 1944, p. 38). It seems at first sight

<sup>1</sup> This paper was read to a colloquium on deontic logic at Manchester in 1965. I am grateful to the members of the colloquium, and also to Professor B. A. O. Williams, for helpful criticisms.

an extremely odd inference; and yet the indicative inference of the same form would be valid by the rules of ordinary logic: from 'You are going to post the letter' we can infer 'Either you are going to post the letter or you are going to burn it'. This latter inference has, indeed, been rejected by some critics of the ordinary propositional calculus; but it is now generally accepted as valid. From examples like this, some writers have argued that imperative logic must be radically different from ordinary logic. Some of them, confusing imperative logic with the logic of normative judgments, have gone on to argue the same for these latter (thereby reaching a correct conclusion, as I think it, by a mistaken argument).<sup>1</sup> Others have argued from the same examples that there cannot be imperative inferences.<sup>2</sup>

Professor Williams gives the key to the understanding of this problem when he says that in such imperative 'inferences' (which he rejects) the premiss has 'permissive presuppositions' (as he calls them) which are in some sense inconsistent with the 'permissive presuppositions' of the conclusion. If a person says 'Post the letter', we naturally take him to imply that we are not permitted not to post the letter. On the other hand, if a person says 'Post the letter or burn it', we naturally take him to imply that he permits us not to post the letter, so long as we burn it. The latter permission is inconsistent with what we have seen to be a 'permissive presupposition' of the premiss (the command to post the letter). Therefore, according to Williams, the premiss is actually inconsistent with the conclusion. He argues that therefore 'the successive utterance of the commands... has a cancelling effect, the effect of withdrawing what has already been said; and that this feature is incompatible with construing such a sequence as an inference' (p. 33).

We may leave on one side the question of whether 'I permit you: not to do *x*, if you do *y*' is inconsistent, and in what sense, with 'I do not permit you not to do *x*'. Some might hold that they can be construed, jointly and consistently, as an oblique refusal of permission to do *y* or even as an oblique way of stating that the person addressed is not going to do *y*. But I shall not pursue this point.

In using the expression 'permissive presuppositions', Williams seems to incline to the view that these are not ordinary entailments. We must therefore ask whether the command 'Post the letter' entails, or only implies in some weaker sense, the withholding of permission not to post the letter, and similarly for the

<sup>1</sup> See my review of E. W. Hall, *What is Value?* in MIND, 1954.

<sup>2</sup> E.g. B. A. O. Williams, *Anal. Supp.*, 1963, p. 32.

command to post the letter or burn it and the permission not to post it so long as we burn it. If these are not entailments, what are they?

We need not spend long on the logical relation between the command to post the letter and the withholding of permission not to post it. Although there might be further argument about this, I propose to take it that 'Post the letter' entails 'You may not refrain from posting the letter'. Another way of putting this is to say that 'Post the letter' is logically inconsistent with 'You may refrain from posting the letter'. This is an instance of what seems to be a general rule, that two commands, or a command and a permission, are logically inconsistent if the statement that one is going to be acted on is inconsistent with the statement that the other is going to be acted on—in other words, if it is logically impossible to act on both.<sup>1</sup>

I shall, however, argue that the relation between the command to post the letter or burn it and the permission not to post it so long as one burns it is not one of entailment; it is similar rather to those discussed by Grice.<sup>2</sup> There is (if I may summarize Grice's view rather crudely), a set of general conventions which have to be observed if communication is to work and misunderstandings, disharmonies and other failures of communication are to be avoided. These conventions are quite general; they do not depend on the particular meanings or logical properties of particular sentences or other utterances. Two of the most important of these conventions are, not to say things which are quite irrelevant to the point of the communication in the context, and not to omit things which are importantly relevant. It is the latter convention which especially concerns us.

The existence of these conventions means that, if we say some things, in some contexts, we imply (or, to adopt Grice's term, 'con conversationally implicate') certain other things which we have left unsaid. Thus if (Grice's example) in reporting on a pupil, I say 'He has beautiful handwriting and his English is grammatical', and say no more, it will be taken that he is no good at philosophy. This is because the fact, if it were a fact, that he was good at philosophy would be, in the context, highly relevant; therefore, by praising his writing and his English, but omitting to praise his philosophy, I am doing something which would be contrary to the general conventions of communication if in fact I were of the opinion that his philosophy was good too. I would

<sup>1</sup> Cf. Williams, p. 30.

<sup>2</sup> *Ar. Soc. Supp.*, 1961, pp. 126 ff.

be omitting an importantly relevant item from my communication although in a position to insert it. Because it is the general convention to refrain from doing this, it is assumed on the present occasion that the reason why I have not inserted any praise of my pupil's philosophy is that I am not in a position to do so; and that is why, by saying what I have said, I have 'implicated conversationally', that there is nothing to be said for his philosophy.

Similarly, if someone is asked where Jones is, and answers 'Somewhere in Scotland', when he knows that Jones is at 115, Dalkeith Road, Edinburgh, and that this is highly relevant, he is in breach of conversational good form. It is this convention which makes *suppressio veri* into *suggestio falsi*; witnesses undertake to observe it when they swear to speak 'the whole truth'—they are not swearing to utter the totality of true propositions, but rather, not to omit importantly relevant truths from their answers to questions.

The general principle is summarized by Grice, and applied to disjunctive utterances, as follows:

'One should not make a weaker statement rather than a stronger one unless there is a good reason for so doing . . . On the assumption that such a principle as this is of general application, one can draw the conclusion that the utterance of a disjunctive sentence would imply the speaker's ignorance of the truth-values of the disjuncts, given that (a) the obvious reason for not making a statement which there is some call on one to make is that one is not in a position to make it, and given (b) the logical fact that each disjunct entails the disjunctive but not *vice versa*: which being so, the disjuncts are stronger than the disjunctive' (*Ar. Soc. Supp.*, 1961, p. 132).

What Grice says is applicable, *mutatis mutandis*, to imperative utterances; but let us start with an indicative example. If, being absent-minded, I ask my wife 'What have I done with the letter?' and she replies that I have posted it or burnt it, she conversationally implicates that she is not in a position to say which I have done; this is because, if she were in a position to make the stronger statement that I have posted it, she should have said so, it being obviously important which I have done. She also conversationally implicates that I may not have posted it, so long as I have burnt it.

If we put this example into the future tense, we come even closer to Williams' imperative case. From 'You are going to post the letter or burn it' we could, if we could think up a realistic context for such an utterance, get the conversational implicature 'You may be going not to post the letter, so long as you are going

to burn it'. Now this latter might be thought in some sense inconsistent with the statement 'You are going to post the letter'. But we do not commonly hear it argued that the inference from 'p' to 'p or q' in the indicative mood is inadmissible because 'p' is inconsistent with a conversational implicature of 'p or q'. And there is no more reason to reject the corresponding imperative inference. If 'p or q' *entailed* propositions which were logically inconsistent with 'p', we should indeed have to reject the inference; but conversational implicatures do not have this effect. Therefore, it may be the case that, in the imperative mood also, there is a valid inference from 'Post the letter' to 'Post the letter or burn it', although the latter has a conversational implicature which is inconsistent with the former, and which amply explains, as in the indicative case, why such an inference would not in any normal context be used.

The matter can be further clarified in the following way.<sup>1</sup> If I want somebody to post the letter, it is up to me to say 'Post the letter'; if I gave the weaker command 'Post the letter or burn it', I should conversationally implicate that he may refrain from posting it, so long as he burns it. Therefore, if I tell him to post the letter, and he infers from this to 'Post the letter or burn it', and fulfils this latter command by burning the letter, he has erred. But his error consists, not in making an invalid inference, but in fulfilling the weaker command when what I gave him was the stronger. We cannot in general be sure of fulfilling commands by fulfilling other commands which are inferable from them. We cannot, for example, fulfil the command 'Put on your parachute and jump out' by just jumping out. In such cases, the inferred command gives a necessary, but not a sufficient, condition for fulfilling the command from which it is inferred. In this respect commands are just like statements, except that fulfilment takes the place of belief (which is the form of acceptance appropriate to statements). If I am told 'He has put on his parachute and jumped out', I am thereby licensed to accept or believe the statement which is inferable from it, 'He has jumped out'. But if I believe that that is all he has done, I am in error. Similarly, if I am told to put on my parachute and jump out, and think that all I have to do is to jump out, what is wrong with my inference is not the conclusion that I am to jump out; this is quite correct. What is wrong is the unjustified conclusion that this is all I have to do. I have supposed that the conclusion gives a sufficient condition of fulfilling the premiss, whereas it gives only a necessary

<sup>1</sup> See further my review of E. W. Hall referred to above.

condition. In the same way, in the indicative example, acceptance of the conclusion is a necessary condition for accepting the premiss, not a sufficient condition. One cannot, in consistency, accept the premiss without accepting the conclusion; but one can very well accept the conclusion without having accepted all that is in the premiss. Once this feature of all inferences, that the conclusion gives a necessary condition, not a sufficient one, is applied in the appropriate way to imperative inferences, the paradoxical character of inferences such as we have been considering vanishes.

In the case of the disjunctive inference with which we started, this is not so obvious, because it is not natural to say that the man who fulfils the command 'Post the letter or burn it' by burning it has fulfilled some part, but not the whole, of the command 'Post the letter'. It is more natural to say that he has fulfilled a command, the fulfilment of which is a necessary condition of fulfilling the command 'Post the letter,' but not a sufficient condition. But the same principle applies. To sum up: the inference from 'Post the letter' to 'Post the letter or burn it' strikes us as paradoxical, (1) because the conversational implicatures of the second of these propositions are so much at variance with the first of them that the inference could have no normal use, and (2) because it is not realized that to fulfil the conclusion of an imperative inference is not necessarily to fulfil the premisses.

A similar move enables us to deal with another of Williams' examples (p. 31). In the propositional calculus, there is a valid inference from ' $p$  or  $q$ ' and 'not  $p$ ' to ' $q$ '. Many writers on the logic of imperatives, including myself, have admitted a similar inference with the premisses and conclusion in the imperative: *i.e.* an inference from 'Do  $a$  or do  $b$ ' and 'Do not do  $a$ ' to 'Do  $b$ '. Against this, Williams argues that the two premisses are in some sense inconsistent with one another. A 'change of mind' must have taken place between the two premisses, and so the inference is destroyed by this discontinuity. The reason why he says that the two premisses are, in the imperative case, inconsistent, is the following. The disjunctive imperative 'Do  $a$  or do  $b$ ' has a permissive presupposition that the person addressed may do  $a$ ; but the second premiss, 'Do not do  $a$ ', has a permissive presupposition which is inconsistent with this, namely that he may not do  $a$ . Thus the two premisses, having mutually inconsistent permissive presuppositions, are themselves mutually inconsistent.

We may perhaps say, in the same way as before, that the relation between 'Do not do  $a$ ' and 'You may not do  $a$ ', which

Williams says is one of permissive presupposition, is actually one of entailment; but I do not need to insist on this. On the other hand, as before, the relation between 'Do *a* or do *b*' and 'You may do *a*' is only a Gricean conversational implicature. The command 'Do *a* or do *b*' is weaker, in Grice's sense, than the command 'Do not do *a*; do *b*'; the latter entails the former, but not *vice versa*. Therefore, if the speaker wished the person addressed to do *b* but not *a*, it would be highly misleading of him to give the weaker command 'Do *a* or do *b*'. If, therefore, he does give this latter command, it is conversationally implicated that his wishes are not such as would be expressed by the command 'Do not do *a*; do *b*'. Therefore it is conversationally implicated that the person addressed may do *a*. And this implicature is inconsistent with the second premiss in the inference, namely 'Do not do *a*'. But, as before, it does not follow, from the fact that a proposition has conversational implicatures which are inconsistent with another proposition, that the two propositions cannot occur as constituents of the same valid inference.

In this case, the inference even has possible uses. They are made possible by a device to which Grice draws attention, and which he calls the *cancellation* of conversational implicatures.<sup>1</sup> That an implicature can be cancelled is treated by Grice as a sign that it is only a conversational implicature and nothing stronger. Suppose that I am a transport officer sending off a convoy from London to Edinburgh. There are five reasonably convenient routes: they all follow the Great North Road as far as Scotch Corner or thereabouts, and then they go respectively (reading from west to east) *via* Beattock, Hawick, Carter Bar, Coldstream and Berwick. Only the last two (the two eastern ones) involve going through Newcastle. I do not know what the snow conditions on the border are, but I know that the Berwick route is certain to be all right, but is rather longer. I therefore say to the commander of the convoy 'Go *via* Coldstream or Berwick; I'm not saying which at the moment, and I'm not authorizing you yet to take the Coldstream route; report to the Transport Officer at Newcastle and he will give you a further message from me'. When he gets to Newcastle, I have found out that the Coldstream route is blocked, and so I send the message 'Don't go *via* Coldstream'. He therefore infers from the two premisses that I have given him, 'Go *via* Coldstream or

<sup>1</sup> Needless to say, this use of 'cancellation' is quite distinct from that in which some writers have said that the imperative 'Do *a*' can be 'cancelled' by saying 'You do not have to do *a*'.



Berwick' and 'Don't go *via* Coldstream', that he is to go *via* Berwick.

In this example, a conversational implicature, which the disjunctive imperative would normally have, is cancelled. Normally, if I said, *sans phrase*, 'Go *via* Coldstream or Berwick', I should be taken as authorizing him to go *via* Coldstream if he thought fit. But what I actually said was 'Go *via* Coldstream or Berwick; I'm not saying which at the moment, and I'm not authorizing you yet to take the Coldstream route; etc.' That I can say this without self-contradiction shows that 'Do *a* or do *b*' does not entail 'You may do *a*' but only conversationally implicates it. And from this it follows that, in the inference from 'Do *a* or do *b*' and 'Do not do *a*' to 'Do *b*', the two premisses are not inconsistent in the sort of way that Williams' argument requires. For exactly the same trick could be worked in the indicative mood; and nobody would wish to argue that therefore the corresponding inference in propositional logic is faulty. If I know, at one stage in my enquiry into a man's movements, that he is going to go *via* Coldstream or Berwick, and then discover at a later stage that he is not going to go *via* Coldstream, I can infer that he is going to go *via* Berwick. The disjunctive statement that he is going to go *via* Coldstream or Berwick does, indeed, carry in normal contexts the conversational implicature that he may be going to do either, and *this* is inconsistent, in some sense, with the later piece of information that he is not going to go *via* Coldstream; but the propositional calculus is unscathed.

If the parallelism between indicatives and imperatives is fully and correctly worked out, it will commonly be found that what is sauce for one is sauce for the other. Williams points to some differences between imperatives and indicatives; but it may be doubted whether these have the consequences which he alleges (p. 33). He argues first, that since it is up to a commander to decide what he wants, a movement from a less determinate to a more determinate command must signify a change of mind; if he had the more determinate want all along, it was up to him to say so to start with. He contrasts the case of indicatives, in which what is the truth does not depend upon the will of the speaker, and in which, therefore, new premisses giving new information can be added to the less determinate ones already available. But in the example given, the commander, *as a result of getting new information*, issues a new and more determinate command, which, however, is not inconsistent with the previous command as given, since the conversational implicatures of that were explicitly cancelled. He has not changed his mind.

Williams argues, secondly, that 'If a commander first gives a disjunctive command, and then moves to the negation of a disjunct, he is in effect calling the agent back, and starting again' (p. 34). But in the example given, the commander cannot be doing this, because what he has said already is a necessary ingredient in the total series of orders; without it, the recipient would not know what to do. The commander is therefore not cancelling his previous order; both the previous order and the subsequent one are required in order that from the combination of them the recipient may *infer* what he is to do.

Is such an inference, as Williams seems finally to suggest, not an imperative inference but a deontic one 'I must do *a* or *b*; I must not do *a*; so I must do *b*'? 'Must', we can agree, is different from imperatives, just as 'ought' is (see below). But suppose the recipient were to say 'I am to go *via* Coldstream or Berwick; I am not to go *via* Coldstream; so I am to go *via* Berwick'. Would these be deontic utterances? If (as we certainly should) we distinguish between imperative and deontic utterances, 'I am to' should clearly be put on the imperative side of the fence. Perhaps what we need initially are more fences. But if the commander were rung up on the telephone by his subordinate and asked to make himself clear, might he not say, with some impatience, 'You are to go *via* Coldstream or Berwick; and you are not to go *via* Coldstream; so you are to go *via* Berwick'? Would he not, then, be spelling out an imperative inference? For it is hard to see much difference, in this context, between the two utterances 'You are to go *via* Berwick' and 'Go *via* Berwick'.

We must now consider the second group of temptations which have led people to say that the logic of imperatives is different from ordinary propositional logic. They all arise through a failure to distinguish between ordinary imperatives like 'Shut the door' and what may be called deontic or normative sentences like 'You ought to shut the door'. I shall be maintaining that the logic of these is quite different from one another. The logic of 'ought'-sentences seems to stand in somewhat the same relation to that of ordinary imperatives as does the logic of modal sentences to that of ordinary indicatives.<sup>1</sup> It is possible that the confusion between 'ought' and the imperative is due originally to the fact that the German word 'sollen' is used, in certain

<sup>1</sup> See H. N. Castaneda, *Ph. Studies*, 1955; E. M. W. Fisher, *MIND*, 1962; and my *Language of Morals*, p. 27 n. For the differences between imperatives and normatives see my *Freedom and Reason*, p. 36 and *Language of Morals*, pp. 175 ff.

contexts, for both, and that some of the most influential early writers on the logic of imperatives were native speakers of German. There is no excuse for speakers of English, which distinguishes clearly between 'You ought to' and 'You are to', making this confusion.

People who make it are sometimes led to argue as follows. They find (perfectly correctly) that the logic of normatives differs from ordinary propositional logic. They then, because they have not distinguished imperatives from normatives, argue that therefore the logic of imperatives must be different from propositional logic. But the questions 'Is normative logic different?' and 'Is imperative logic different?' are not the same question; and the answer to the second may be 'No', even if the answer to the first is 'Yes'.

There are good reasons for holding that the logic of 'ought' is different from ordinary propositional logic. The first point of difference is that which has led people to say, either that the logic of 'ought' is three-valued, or that the law of the excluded middle does not apply to 'ought'-statements. It is possible for it to be neither the case that Smith ought to do *a*, nor the case that Smith ought not to do *a*; the proposition that Smith either ought to do *a* or ought not to do *a* is not a logical truth. It may be indifferent, as they say, whether Smith does *a*. But here there is a trap to be avoided. Let us for the moment forget about three-valued logics and operate with the connectives of ordinary logic, including ordinary negation. We shall then see that it is not necessary to speak of three-valued logic in this context (useful as it may be in others), and that it is not necessary here to invoke a special kind of negation. We need only to be clear-headed about the question, *What is the negation or contradictory of an 'ought'-judgment?*

The contradictory of 'Smith ought to do *a*' is not 'Smith ought not to do *a*', but 'It is not the case that Smith ought to do *a*'. And similarly the negation of 'Smith ought not to do *a*' is 'It is not the case that Smith ought not to do *a*'. We have, therefore, not three propositions, as in the above suggestions, but four. The two which begin 'It is not the case that...' are different, logically independent, propositions. The trap to be avoided is that of thinking that the proposition 'It is indifferent whether Smith does *a*' is a simple one; it is in fact equivalent to the conjunction of propositions 'It is not the case that Smith ought to do *a*, and it is not the case that Smith ought not to do *a*'.

Having got our four propositions, we can then arrange them on the lines of the old square of opposition, as is done by Professor

Prior;<sup>1</sup> and we shall find that the relations between them are the same as in the old square (not that this is free from problems). 'Ought' and 'ought not' are contrary, not contradictory expressions; the contradictory of 'ought' is 'not the case that ought', and the contradictory of 'ought not' is 'not the case that ought not'. The fact that these deontic propositions fall into the same square as quantificational expressions is some support for the view that 'ought'-statements are universalizable; if the universalizability thesis is correct, it is what we should expect. It is significant that alethic modal propositions, which are also universalizable, fall into a similar square.<sup>2</sup> This, however, is not an appropriate place to embark on a discussion of the relations between modal, quantificational and other propositions.

Let us now ask what is the place of permissions in this scheme. Corresponding to the above-mentioned confusion between 'ought' and imperatives, there is a similar confusion between two quite different things which have been called, in the books, permissions. The first is expressed in English by such phrases as 'It is all right to'. The second is expressed by 'You may', in that sense in which it means the same as 'I (hereby) permit you to'. 'You may', in this sense, expresses a permission given by a particular speaker, and is, as we might say, personal to him. The question of a reason for the permission need not arise, though it often does (compare the case of ordinary singular imperatives discussed in *Freedom and Reason*, *loc. cit.*). If the Shah of Persia says to a courtier 'You may go now', there has not got to be anything about the situation which makes it now appropriate to say this. On the other hand, if the Shah says 'It is all right for you to go now', the courtier is in order if he wonders what has changed in the situation to make it all right to go now, though it was not before. This shows that 'It is all right to' expresses more than a particular speaker's permission.

The expression 'It is all right to' fits quite easily into the square of opposition which we set up for 'ought'. We might say that 'It is all right for Smith to do *a*' means the same as 'It is not the case that Smith ought not to do *a*'.

Although it is quite wrong to say that 'It is all right to' expresses a permission (just as it is, for different reasons, wrong to say that all 'ought'-sentences, even in moral contexts, refer to obligations), we may bow to convention and use the symbols 'O' and 'P' to stand for 'It ought to be made the case that' and 'It is all right for it to be made the case that' respectively.

<sup>1</sup> *Formal Logic*, p. 220.

<sup>2</sup> See Prior, *op. cit.*, p. 187.

But, if we do this, we must be constantly on our guard against thinking that '*Op*' means 'Let it be the case that *p*' or that '*Pp*' means 'It may be made the case that *p*'. Provided that one avoids this confusion, one can say that the square of opposition for deontic modalities can be written:

<i>Op</i>	<i>ONp</i>
<i>Pp</i>	<i>PNp</i>

One can perhaps treat '*P*' as a defined operator meaning the same as '*NON*'. There remains the question of what, in this symbolization, the small '*p*'s and '*q*'s represent; but that I shall not discuss in this paper.

I have given reasons for thinking the logic of 'ought' and 'It is all right to' to be different from ordinary propositional logic and much more like a modal logic. We must now ask whether any of this is true of plain imperatives or 'may'. I shall argue that, in spite of appearances to the contrary, it is not true. *Prima facie*, it looks attractive to set up a similar square of opposition for ordinary imperatives, as follows:

Do <i>a</i>	Do not do <i>a</i>
You may do <i>a</i>	You may abstain from doing <i>a</i>

Here the 'may' is some sort of negation or (better) withholding of an imperative (affirmative or negative). We shall ask in a moment, what sort; and it will turn out to be a difficult question. Hall argued on these lines.<sup>1</sup> He wished to prove that imperative logic is different from indicative logic; and he tried to do this by pointing out that there is, as we might say, a *tertium* between 'Do *a*' and 'Do not do *a*'. For I do not have to tell a man to do *a* or tell him not to do *a*; I can let him do what he wants. Thus far all can agree; the question is, How is this to be interpreted?

Let us try to shed some light on the question by asking whether, after all, exactly the same trick cannot be played in the indicative mood. If this were so, the argument that imperative logic is different would break down. And in fact it can be played quite easily, using another sense of 'may'. Our square of opposition is then as follows:

The cat is on the mat	The cat is not on the mat
The cat may be on the mat	The cat may be not on the mat

But the questions remain, What is this may? and What are the relations between the corners of the square?

<sup>1</sup> *Op. cit.*; see my review referred to above.

It is easy to see that the 'square' which we have just set out bears only a slight resemblance to the ordinary square of opposition. 'The cat may be not on the mat' is not the contradictory of 'The cat is on the mat'; and 'The cat may be on the mat' is not the contradictory of 'The cat is not on the mat'—as would be the case if this square were like the ordinary one. If we are looking for the contradictory of 'The cat is on the mat', we find it in the wrong place; for the top two corners of the square, 'The cat is on the mat' and 'The cat is not on the mat' are not contraries, as they should be, but contradictories.

What is the relation between 'The cat is on the mat' and 'The cat may be not on the mat'? Certainly no relation known to ordinary propositional logic. The word 'may' has many different uses; but in one of them 'The cat may be not on the mat' might be rephrased 'I don't say that the cat is on the mat'. Is it possible that the function of 'may' in this sense is to *refuse* to say something? Suppose we are peremptorily asked 'State whether the cat is on the mat'; it may be impossible for us to do this, because we just do not know whether the cat is on the mat. Or we might have some other reason for not saying; if, during a game of hunt-the-thimble, I am asked by one of the children playing whether the thimble is near the window, I may properly answer 'It may be', even though I know very well where the thimble is. We have a use for a way of volubly and loquaciously *not* making a certain statement; and perhaps there is one sense of 'may' in which it fulfils this function.

We may doubt, therefore, whether the imperative square of opposition set out earlier really is the same sort of thing at all as the modal squares with which we started. For in many ways it is more like the indicative pseudo-square which we have just been discussing than it is like the modal squares. 'You may abstain from doing *a*' seems very like 'I don't tell you to do *a*'; and 'You may do *a*' seems very like 'I don't tell you not to do *a*'. And if we ask, which is the true contradictory of 'Do *a*': 'Don't do *a*' or 'I don't tell you to do *a*', I myself have no hesitation in answering 'The former'. I must now try to justify this lack of hesitation.

Consider the following objection. Surely, it might be said, I don't have to say either 'Do *a*' or 'Don't do *a*'. I can say 'It's up to you' or 'Do what you like' or a number of other things. Or, still more plausibly, the objector may say: If you consider the other way of giving commands, in the form 'You are to do *a*' and 'You are not to do *a*', surely it could *be the case* neither that the man spoken to is to do *a*, nor that he is not to do *a*.

There is no injunction to him to do *a*, nor is there any injunction not to do *a*.

Now this way of putting the objection gets us to the heart of the difficulty. Indicative ways of speaking are very familiar to logicians, and they are always loth to abandon them. Those who are, as we might put it, 'indicative-bound' will always have a hankering to ask 'Is it the case that *p*', even when '*p*' stands for an imperative. If one insists on asking this question, one may get answers which miss the point—the essential nature—of imperatives. It cannot, literally, be the case that *p*, where '*p*' stands for an imperative. I can say '*p*', or I can say 'not-*p*'; and the logic of imperatives is about consistencies and inconsistencies between imperatives of this general sort, and about what we must in consistency agree to, if we have said something else.

Now if we translate 'Do *a*' as 'You are to do *a*' (as is in itself quite legitimate); and if we regard this as something that *is the case*, then we shall get puzzles about *what* exactly is supposed to be the case—puzzles that we should avoid if we can. It is, indeed, common form to use the phrase 'It is not the case that' as a way of negating an utterance; we used it above with 'ought'-statements, in order to express their negations, which, as we saw, cannot be expressed by saying 'ought not'. It is possible to do this, while remaining uncommitted about the logical status of the utterance which is negated. But when people say that it might be the case of somebody, neither that he is to do *a*, nor that he is not to do *a*, they are implicitly giving these imperatives the status of indicatives—of sentences which can express what is the case in a much stronger sense. In this they are supported, *prima facie*, by the fact that there is a sense of 'You are to' in which it means the same as 'Some person or authority, identifiable but not identified, has as a matter of fact commanded, or does as a matter of fact command, you to'. This is, in one of the senses of that ambiguous term, a metalinguistic statement; it reports the second-order fact that somebody has said or says something. And this is something that could *be the case* in the strongest possible sense.

If 'You are to' is taken in this way, then a ready sense can be given to 'It is the case that you are to'. But, fairly obviously, in this sense, 'You are to do *a*' does not mean the same as the ordinary imperative 'Do *a*'. For the latter is not (as on this interpretation the former is) a metalinguistic remark or report of what has been said. When I say 'Do *a*', I am not stating that the person addressed is or has been in fact commanded to do *a*; I am commanding him to do *a*.

Having removed this source of confusion, we can readily admit that some of the things which our objector says about 'You are to do *a*' are true, in that sense of that expression in which it is *not* equivalent to the imperative 'Do *a*'. If no command has been issued, it is neither the case that the person in question has been commanded to do *a*, nor that he has been commanded not to do *a*. So 'You are to do *a*' and 'You are not to do *a*' are not contradictories, if they are taken as equivalent to 'You are as a matter of fact commanded to do *a*' and 'You are as a matter of fact commanded not to do *a*'. Obviously, the contradictory of 'You are as a matter of fact commanded' and not 'You are as a matter of fact commanded not'.

However, all this is quite irrelevant to the question of whether 'Do *a*' and 'Do not do *a*' are contradictories; for, as we have seen, they are not the equivalents of the factual assertions just discussed. Reluctant as some extreme empiricists may be to admit it, 'Do *a*' can be a meaningful utterance without being a report of any fact. Confusion between the two uses of 'You are to' does, however, readily explain why it has seemed so plausible to say that 'Do *a*' and 'Do not do *a*' are not contradictories. The confusion creeps in, as I have said, because people ask 'Could there not be something that *was the case*, in between its being the case that you are to do *a* and its being the case that you are not to do *a*?'. To which the answer is 'Yes', if 'You are to do *a*' is taken as a factual report that a command has been given; but if it is taken as the equivalent of 'Do *a*', no sense has been given to the question; for the sentence 'It is the case that do *a*' has no meaning.

Coming back, then, to the original pair, 'Do *a*' and 'Do not do *a*', let us ask, yet again, whether they are contradictories. They seem to have as much right to be called contradictories as the corresponding indicative pair 'You are going to do *a*' and 'You are not going to do *a*'. If somebody asked me 'Am I to do *a*?', I could of course, refuse to give him an answer; I could say 'I'm not telling you to do it, and I'm not telling you not to do it; decide for yourself'. And then it would be the case, neither that I had told him to do *a*, nor that I had told him not to do *a*. But similarly, if asked 'Is the cat on the mat?', I could answer 'I'm not saying; you say'. And then it would be the case, neither that I had told him that the cat was on the mat, nor that I had told him that it was not. But if an answer (a straight answer) is insisted on in either case, then it must be a 'yes or no' answer. 'Tell me', the man might say, 'is the cat on the



mat—yes or no?'; or 'Tell me, am I to do *a*—yes or no?'; and to questions like these, there is no third answer, in either case, besides 'Yes' and 'No'. I can remain silent, but that is no answer.

'But'; our objector may say, 'surely this misses the point. In the indicative case, there is nothing that can *be the case* between the cat's being on the mat and the cat's not being on the mat, and this is what is meant by the law of the excluded middle. But in the case of the imperatives there is this something that could be the case, in between. For' (and this is where the indicative-bound cloven hoof shows itself) 'surely, if imperatives have a sense at all, there must be something that you are asserting to *be the case* when you utter an imperative—the *existence* of a norm, as perhaps Professor von Wright would put it. And if so, surely there is something in between the existence of the norm, to do *a*, and the existence of the norm, not to do *a*. For surely neither of these norms might exist.' But we can now see what is wrong with this whole approach. For to say 'Do *a*' is not to assert the existence of a norm, or of anything else. The reason why there seems to be a gap between what is *asserted* by 'Do *a*' and what is *asserted* by 'Don't do *a*' is not that they both make assertions, between which there is a gap; it is that neither of them makes any assertion at all. And this is because, being imperatives, it is not their job to make assertions. Another way of putting this point is as follows. Just as there is nothing I can *assert* in between 'The cat is on the mat' and 'The cat is not on the mat', so there is nothing I can *command* in between 'Do *a*' and 'Don't do *a*'.

We may therefore urge deontic logicians to take another look at the question of whether there are differences between indicative and imperative logic, keeping carefully in their minds, all the time, first of all the distinction between entailments and conversational implicatures; secondly, that between imperatives and normatives; and thirdly, that between commands and reports that a command has as a matter of fact been given.

By way of postscript, something needs to be said about a distinction which is of great importance for the logic of imperatives. Somewhat similar distinctions have been drawn by Ross in the paper referred to above, and by Mr. Kenny in unpublished papers. We may distinguish between a 'logic of satisfaction or fulfilment' for imperatives, and logics of 'validity' or 'satisfactoriness'. Both these kinds of logic would be attempts to find a 'value' which will play the part in imperative logic which is

played by truth in indicative logic (for example, in the construction of truth-tables). Many would-be imperative logicians have been led astray by the search for such a truth-substitute; but the distinction is nevertheless important. In indicative logic, the premisses of a valid inference cannot be true and the conclusion false. If we recognize that commands cannot be true or false, it looks as if we have to find some notion to take the place of truth in the case of imperative inferences. The 'logic of satisfaction' makes use of the idea that in a valid imperative inference the premisses cannot be fulfilled or satisfied without the conclusion being satisfied. The logics of 'validity' and 'satisfactoriness' use, instead, the idea that the premisses of a valid imperative inference cannot be 'valid' or 'satisfactory' without the conclusion being so too. It is obvious that these two ideas will lead to quite different logics.

The logic of satisfaction is bound to be isomorphous with ordinary indicative logic. Indeed, it has been said with some justice to be nothing but an application of ordinary indicative logic. It may be that the imperative inferences considered above are all inferences in the logic of satisfaction, and therefore only indicative inferences in disguise. This should not alarm us; if the imperative inferences which we wish to make, and which are important for practical thinking, turned out to have this basis, that would be both a great simplification of the subject and at the same time an adequate support for prescriptive logic as applied in moral and other fields. A logic of satisfaction would still be an imperative logic in the sense that it would tell us how to know, when given a command, what other commands must necessarily be fulfilled if we are to fulfil the first command. And this is what we are looking for in most imperative inferences.

On the other hand, it may be doubted whether logics of validity or satisfactoriness can be called logics of imperatives at all. They are, rather, logics of modal statements *about* commands, such as statements that a certain command is valid or satisfactory. Without going into all the difficulties and problems raised by this suggestion, I will venture the opinion that, since there is nothing to correspond to truth in the case of commands, those who look for a kind of *ersatz* truth to form the basis of a logic of imperatives are looking in the wrong place.

What is needed, rather, is a logic which tells us what other things we are, implicitly, commanding when we give a certain command, just as ordinary logic tells us what other things we are, implicitly, asserting when we make a certain assertion. We want to be able to say: 'If you command that  $p$ , you are

commanding, implicitly, that (at least)  $q$ '. For example, we want to be able to say: 'If you command that the letter be posted, you are commanding, implicitly, that it be at least posted-or-burnt'; or 'If you command a man to put on his parachute and jump out, you are commanding him, implicitly, (at least) to jump out'. The burden of this article has been that some of the reasons sometimes given for holding that such a logic could not be isomorphic with indicative logic are bad ones.

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Note: Mr. Kenny's article, referred to as 'unpublished', has since been published in *Analysis*, 26.3 (1966), p. 65.