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Some Sub-Atomic Particles of Logic¹

R. M. HARE

I can best begin this contribution to the articulation of speech acts with a consideration of the Fregian 'assertion-sign', or, to speak more accurately, 'judgement-stroke'. This correction itself warns us that there is not just one kind of sign that has to be examined, but several, and that an elucidation of this difficult subject has to begin with a careful distinction between them. Only then can we see which of these signs are necessities, or even possibilities, for logic-that is, what we are to say about Wittgenstein's complete dismissal of Frege's sign in Tractatus 4.442 and subsequently as 'logically quite meaningless'. I submit this discussion as a penance for having failed to make the necessary distinctions clear in my first book The Language of Morals, in spite of being at least partially aware of them at the time.² I later made some of them in print, especially that between what I shall be calling signs of subscription and signs of mood.³ In spite of this, the distinction is still often neglected; in particular, both Michael Dummett's and Donald Davidson's discussions would have been a great deal clearer if they had been more attentive to it. 4 I should perhaps add that I have found Dummett's treatment of assertion rewarding, and agree with most of it.

Let us then look at some of the different things that are done by what I called in that book the 'neustic'. I am going to start with the easiest customer. I do not think that anybody could, on reflection, deny that a logical notation needs a sign of mood, if it is to handle sentences or speech acts, or different kinds of things that are said, in different moods. This is

¹ This paper was to have appeared in the Festschrift in honour of J. O. Urmson. It had to be withdrawn because the Stanford University Press would not print it with the punctuation I think correct. I could not agree to a style which obscures the relation of punctuation to logical form, especially in a paper much of which is concerned with this relation. Naturally I am very grieved not to be able to honour Jim Urmson, as an old friend and a distinguished philosopher, in that volume; but, being himself a man of principle, he has been most understanding of my position, and I honour him now in the happier environment that the editor of Mind has kindly afforded.

I was asked to contribute to the Festschrift a paper about speech act theory, to which he has been from the beginning a notable contributor, although it is far from being his only interest, any more than mine. In particular, his paper 'Parenthetical Verbs', Mind, 1952, could be said to have anticipated some of Austin's insights, and his 'On Grading', Mind, 1950, was of such importance that, as I can testify from my own development, it opened up a whole new front for advances in moral philosophy. He read it, I think for the first time, at a seminar in which he kindly invited me to join him at Christ Church. Oxford in the late forties.

- ² See appendix to the first paper of my Practical Inferences, London, Macmillan, 1971.
- ³ See my 'Meaning and Speech Acts', reprinted ibid., p. 74 from Philosophical Review, 1970.
- * D. Davidson, Inquiries into Truth and Interpretation, Oxford, Oxford University Press, 1984, p. 110; M. Dummett, Frege: Philosophy of Language, London, Duckworth, 1973, pp. 308 ff.

evident, at any rate, if we need, in our logical notation, to have different expressions for sentences whose meaning is different. For it is clear that, for example, the Latin words 'i' and 'ibis' have different meanings, namely 'Go' and 'You will go'. I can see only two ways in which this conclusion could be avoided. One would be by confining logic to sentences in the indicative mood. This is sometimes advocated on the ground that logic deals with what follows from what, and nothing follows from anything unless both are propositions having truth values, and only sentences in the indicative mood can express propositions having truth values. In reply to this it is not necessary to say that imperatives like 'Go' can express something that can follow or be followed from logically—that thorny question can be left on one side. All that need be said is that logic is concerned also, and perhaps more primitively, with inconsistency, and that anybody who does not think that the two commands 'Go' and 'Do not go' are inconsistent does not know English. We need therefore a logic which can tell us how to separate the pairs of commands which are inconsistent from those which are not.

The second way out would be to say that, although 'Go' and 'You will go' mean different things, the difference is of no interest to logic, because it makes no difference to the inferences and other relations that logic studies. But this at any rate appears to be false. There is an inconsistency, as I have said, between 'Go' and 'Do not go'; and there is an inconsistency between 'You will go' and 'You will not go'; but there is none between 'You will go' (where this sentence expresses a statement) and 'Do not go' (expressing a prohibition). At least, not an inconsistency of the same sort. It may be that if a single person uttered both, he would be saying something logically odd (although if he were an officer giving an order that he was sure would be disobeyed, in order to get his subordinate into trouble, he might say it). But at any rate if two different people said to the same person 'You will go' and 'Do not go', there would be no logical inconsistency between what they said. Similarly, the inference from 'You are going to bring me five apples' to 'You are going to bring me at least four apples' is valid; but that from 'Bring me five apples' to 'You are going to bring me at least four apples' is invalid. Therefore a logic which could not distinguish between the moods would be unable to distinguish a valid from an invalid inference in this case. It is no answer to this argument to say that the second of these inferences is invalid only because all inferences containing imperative elements are invalid; for, even if this were so, we should need, in order to tell whether inferences were valid, to have some means of identifying the imperative elements in them which would destroy their validity, or at least the indicative elements in those whose validity was above suspicion.

It will not do, even, for logicians to put at the beginning of their books a rubric to say that all the sentences in the formal part of the books are

going to be in the indicative mood; for we need to be able to satisfy ourselves that the rubric has been observed. On the other hand, if the rubric says that all the sentences in a book are to be *understood* as being in the indicative, that amounts to the same as putting in front of *each* sentence a rubric to the effect that it is to be understood as being in the indicative; and that would *be* a sign of mood.

I propose to take it, then, that a complete notation needs signs of mood; and for these signs I propose to use, as I have before,⁵ the term 'tropics', from the Greek word for grammatical mood. There are many serious problems about tropics; but I shall not have time to do more than mention some at the end. In particular, there is the problem of how to distinguish, for example, the meanings of the imperative and indicative verb-forms. To this I hope to return in another paper.

The next sign I shall discuss is much more controversial, namely the sign of assertion. Indeed, many people have, like Wittgenstein, denied the necessity or possibility of such a sign. What I have said about mood-signs or tropics may be taken as a warning against a confusion which has sometimes been made. I mean by 'assertion' here not 'assertion as opposed to commanding, etc.'; the sign of assertion in that sense would be a moodsign or tropic. Nor do I mean 'assertion as opposed to negation or denial'. Following Frege, but without defending myself here, I shall take it that negation of the ordinary sort, as opposed to what Searle and Vanderveken call 'illocutionary denegation', 6 can be dealt with as part of what is asserted; that is, that we can, in this sense, assert either that the cat is on the mat, or that the cat is not on the mat. I mean 'assertion as opposed to merely supposing, entertaining or the like'. I shall be explaining what I mean by this at considerable length. Because the word 'assertion' can be confusing, I propose now to abandon it, and speak instead of a sign of subscription. This has the further advantage of being readily applicable to other kinds of sentences, speech acts, etc. than those expressed in the indicative mood. As a shorter term for 'sign of subscription', I propose to use my old word 'neustic', from the Greek word meaning 'to nod assent'; I hope that this paper will purge the word of its former disgraceful ambiguity.7

Are there, can there be, do there have to be, signs of subscription? I feel inclined to reply that there are, and therefore obviously can be; that there do not have to be, because signs of non-subscription would do just as well if employed systematically; so would, alternatively, a ban on saying anything that you do not subscribe to; but I think that it is a necessity to

⁵ See ref., n. 3.

^o See J. R. Searle and D. Vanderveken, Foundations of Illocutionary Logic, Cambridge, Cambridge University Press, 1985, p. 4, and my 'Some Alleged Differences between Imperatives and Indicatives', Mind, 1967, s.f., repr. in my Practical Inferences, cited in a. 2.

¹ See refs. in nn. 2 and 3.

have one or other of these devices or rulings—otherwise we should not know what people were subscribing to and what they were not subscribing to. Ordinary language is a bit more free and easy than that; but in principle a language in which it is to be made clear what is being said has to have some provision for indicating subscription or its absence.

I will start with an illustration of the trouble that can arise if we do not have such a sign. Professor Davidson, who gave the John Locke Lectures at Oxford many years ago, had been maintaining in them that inverted commas (which are one way of indicating non-subscription, though this is not their only function) could be eliminated from logical notation by means of what he called, following the grammarians, a 'paratactic' construction; thus, instead of 'He said "Mary has gone home", we could write 'He said that: Mary has gone home', where 'that' is a demonstrative having as referent the sentence that follows. There is some etymological support for this device; for it is said that the conjunction 'that' does indeed derive from the demonstrative, and that the sentence 'He said that Mary plays tennis' is derived from a more primitive 'He said that: Mary plays tennis'.

I am not suggesting, nor was Davidson, that 'that'-clauses mean the same as quoted expressions; there are obvious differences, and Davidson explains them in later work. But that is not my point. The point I made in subsequent conversation with him was that, if the sentence 'Mary has gone home' is taken out of its insulating inverted commas, we need some way of telling that it is not being asserted or subscribed to by the speaker. In answer to this, he said, in effect, that it was perfectly easy to tell that it was not being subscribed to. I said that I would one day show him that it was not.

That evening I wrote him the following letter:

Dear Professor Davidson,

I have heard that some of our students, who disapprove of your government's actions in Cambodia, are going to come and disrupt your next lecture, and I trust that you will come prepared to shout them down.

The preceding paragraph contains 37 words.

My wife and I would be so delighted if you and your wife could come to lunch with us on Friday week at our home.

The preceding paragraph contains 25 words.

I am sure that you will easily be able to tell which of the preceding paragraphs express assertions.

Yours, etc.

I think it is in general true that if there could be a *law* requiring a certain practice, there could equally be just a *convention* requiring it. Now the law does require signs of subscription in certain cases, and, moreover,

holds people to what they have so subscribed to. If anybody does not agree, he should try getting up in court and swearing to speak the truth, and then saying that he saw the prisoner do what he was accused of, and then, afterwards, claiming that he was not, actually, asserting this but only entertaining the idea, or supposing it, or joking, or pretending, or whatever. For the same reason it was logically absurd, and not just morally reprehensible, for Hippolytus to say 'My tongue swore, but my mind is not sworn'.

Signatures, for example on cheques, provide another example. They are not merely for identification of the drawer, whose name is now already normally printed on the cheque form. They signify subscription (as the etymology of that word indicates). If one has signed a cheque, one cannot say one has not instructed one's bank to pay. If it pays, then one will have no redress against it.

I said that if there could be a law requiring (and I might have added 'or permitting') a certain practice, there could equally be just a convention requiring or permitting it. The law does not actually require the addition of signs of subscription to all speech acts, and still less do our ordinary conventions. Nor do they permit people to claim not to have subscribed in the absence of such signs. Instead, both in law and by convention, we have a rather elaborate, though actually pretty stringent, set of requirements, combining the use of signs of subscription with that of signs of non-subscription. So we have always, in principle, a just cause of complaint if somebody claims not to have subscribed to some utterance he has made, when according to the conventions he has subscribed to it. Could we simplify these requirements by insisting (as for purposes of logic we might feel inclined to do) that all utterances subscribed to were prefaced by a sign of subscription, and that none not so prefaced was subscribed to? To understand this question we have to be clear, of course, that I am using 'subscribe' as a word, not for a mental act or state, but for the performance of some kind of speech act or act of communication. Obviously my signing of a cheque is not a mental act, and does not even need to be accompanied by one in order to signify my subscription.

Let us ask, then, could we have a law requiring the universal use of signs of subscription in front of subscribed-to utterances—a law which made it impossible to hold someone to an utterance unless he had subscribed to it by appending this sign? I think we could, though of course it would be tedious. There is one extremely popular argument, repeated by Davidson, 10 which is designed to show that we could not. It is said that, even if there were such a sign, there could be uses of it which were non-subscriptive. Instances would be uses of it on the stage, on the blackboard, inside quotation marks, and so on. So, it is claimed, the mere presence of the sign could never guarantee subscription.

I agree that the presence of the sign could never safely be relied on by the audience as a sure indication that the utterer intended subscription (as we saw, mental states do not come into the matter, and, moreover, utterers can pretend to have mental states that they do not have; and intention is, I suppose, a mental state). But that is not what is meant in this context by 'guarantee'. What is meant is that the utterer, in using the sign, and independently of any mental acts he may or may not be performing, gives his guarantee that he is uttering the words subscriptively. We have to ask, then, whether it could be the case that by law anybody who put this sign in front of an utterance was to be taken to have subscribed to the utterance and could not wriggle out of it.

Such a law would obviously be very restrictive. It would, for example, make play-acting impossible. But, I claim, one could have such a law. We might compare the laws which there have been against blasphemy, foul language, etc. If you get up on the stage and blaspheme, it is no use, if such laws are in force, claiming subsequently that you were not subscribing to the blasphemy but only acting the part of a blasphemous person. You might as well try actually killing someone on the stage and then claiming that the fact that you did it on the stage exempted you from prosecution for murder.

In our actual practice, as opposed to such a restrictive law, we are much more flexible. We have conventions which allow us to cancel subscription, as well as those I have mentioned which allow us to indicate it, like the signature. The proscenium arch which protects actors is an obvious example of such a subscription-cancelling device. It is a convention that things said behind it are not being subscribed to. That is why, as I have been informed by Christopher Taylor, actors have a rule that if a real fire breaks out back-stage; the person who discovers it has to shout, not 'Fire!' (for fear that it might be thought to be part of the play) but some other expression earmarked for this purpose.

That such protection is necessary is evident. None of us thinks that in a performance of Cosi fan tutte the singers taking the parts of Ferrando and Fiordiligi and the other pair have really got married; and, even if it were a representation of a real lawyer and not Despina dressed up as one, it would make no difference. But suppose that the performance takes place in church, and is done by a clerk in holy orders who has read the banns three times on previous Sundays, and after the whole liturgy has been gone through according to the rubrics, the parish register is signed and witnessed. Can we then say that they have not got married but were only play-acting?

Even on the stage, as we have seen, people are sometimes held to things which they say. The producer comes on and announces a change in casting; the chorus-leader says 'Plaudite' (clap) to signify the end of a Roman comedy; in the parabasis of a Greek comedy the chorus comes

forward and addresses the audience with views which are certainly expressed in earnest, albeit by an agent rather than by their author. Greek playwrights were sometimes successfully prosecuted for the political indiscretions they put into the mouths of their actors. So the prosecnium arch and its ancient equivalents are not a complete protection.

I do not think we can get any further without introducing an important distinction between two quite different kinds of non-subscription.¹¹ The first is that which, up to now, we have been considering almost exclusively. This I shall call mimesis. It consists in the use of expressions which are, by convention, signs for performing a certain speech act, but not performing it in earnest. We have already had examples of this. I wish to maintain that language would break down unless there were some way of indicating when one was using mimesis and when one was seriously subscribing.

Such non-serious, mimetic uses of language are to be distinguished from a quite different class of cases in which subscription is withheld, namely those in which expressions that, if isolated, would signify subscription to something, sometimes do not do so because they are embedded inside other expressions. Whether embedding always has this effect is disputed. The most obvious examples are the embedded sentences contained in conditional clauses, 'that'-clauses (in some contexts), disjuncts, sentences in quotation marks, and the like. Such non-subscription is obviously different from the mimetic kind. Whether these two possibilities exhaust the kinds of non-subscription. I am not so sure. It is not easy to decide into which category to put the writing of propositions on the blackboard in a philosophical (as opposed to a historical) lecture. Are we to say that the blackboard functions like the proscenium arch? Or are we to say that there are implicit quotation marks round the sentence, just as, in printed books, quoted passages which are indented are by convention not given quotation marks, although strictly they should have them? On the first alternative, we have a case of mimesis; on the second, one of embedding (the sentence on the blackboard is embedded in the oral remarks of the lecturer). I do not find it easy to decide whether the blackboard case has one of these two explanations or whether it represents some third kind of case different from both, which includes also what has been called 'supposing' or 'entertaining'. The latter can be done to what is expressed by complete isolated sentences, and yet is hardly non-serious in the sense that play-acting is.

It might be argued that no sign of subscription could be of service in logic or ordinary language, because such a sign would be useless as an indication of non-mimesis (an actor could always, and would, put it in), and unnecessary as a sign of non-embedding (because it is evident from the form of sentences whether a given expression is embedded or not). I

¹¹ I owe this distinction and the word 'mimesis' to Mrs Julie Jack.

have given my reasons for rejecting the first of these two arguments; we could have, and in certain legal contexts do have, signs which give the speaker's guarantee that he is being serious. As to the second reason, I agree that if embedding and mimesis are the only two categories of non-subscription (and I will for the present assume for the sake of argument that they are the only two), then we could have a convention that all non-mimetic, isolated, non-embedded utterances were to be taken as subscribed to by the utterer. And over a large part of discourse we do have such a convention. But we equally could, and in parts of discourse do, have a convention that, on the contrary, subscription should be taken as not being given unless a sign of subscription is appended. I have given examples of this. I can see advantages for logic in having the latter convention made explicit and universal in formalized languages, as Frege seems to have wished. Certainly it is not impossible to have such a convention.

This whole subject will, I hope, become clearer when I have discussed the third of my sub-atomic particles, which I am going to call the sign of completeness. For then, I hope, we shall understand better what embedding is. But before I do that, I must add two notes to my defence of the sign of subscription. The first is that we have in language a class of performative verbs which are (1) neutral as between the imperative, indicative, and other moods, and (2) apparently devoted to some sort of subscription, which can be of varying degrees of what I shall call 'insistence'. The verb 'I insist' is indeed one of these. It can be followed by an indirect command (in the Kennedy's-Latin-Primer sense of 'command' which I used in The Language of Morals), as in 'I insist that you go'; but it can also be followed by an indirect statement, as in 'I insist that he has gone'. Another verb in this class, but at the opposite end of the same spectrum, is 'suggest'; we can say 'I suggest that you go' or 'I suggest that he has gone'. In between come some more neutral expressions like 'I tell you' and 'I say'. We can say 'I say that you are to go' or 'I say that he has gone'; and we can say 'I tell you to go' or 'I tell you that he has gone'.

I cannot see any need to say that there is a difference here between senses or uses of these verbs. 'Insist' does not have different senses in the above examples; in both it expresses very firm and unyielding subscription, and the difference in the moods of the subordinate clauses looks after the difference in meaning between the two whole speech acts. The same is true of the other verbs. This is some support for the view that there is an expressible operation which can be called subscription. Other specialized verbs of this sort are 'I swear', which can be constative as in 'I swear he has gone' or commissive as in 'I swear to speak the truth' (though it has no use in indirect commands); and 'I advise you', as in 'I advise you to go' and 'I advise you that the goods you ordered are ready for dispatch'. But the last case may be a genuine ambiguity in the word 'advise'.

The second note is to forestall a possible objection. It may be said that the conventions that I have appealed to, and the laws, are not linguistic conventions or laws. On this view, it has nothing to do with the meanings of words that I cannot get away with swearing in court to speak the truth, and then stating something, and then saying that I was joking; it depends on an extra-linguistic convention or rule, or on that (to my mind) damnably vague thing 'the context'. And it is not a rule of language that gives the proscenium arch and the blackboard the protective power that they have, but rather the rules of the institutions called 'the theatre' and 'giving philosophy lectures'. The effect of this objection is to make me wonder what is the distinction between linguistic and non-linguistic rules. Linguistic rules cannot be limited to rules which determine what one can or cannot concatenate with what in what order. There are such rules, and they are the formation-rules of a language, together with the rules (if they are different) whose observance saves us from logical errors like selfcontradiction. But these are certainly not the only linguistic rules; there has to be added at least the class of rules which determine what we can and cannot say in what situations—I prefer this word to the word 'context', because the latter means, properly, the surrounding words, and the fashionable philosophical use of it is incorrect as well as deplorably vague. The commonest kind of rule of this class is the kind that Austin called, in his paper on 'Truth', 'descriptive conventions', 12 such as that which forbids me to call the paper on which this is printed 'purple'. There are also Austin's 'demonstrative conventions', which regulate the use of referring expressions like 'this'. All these involve for their observance an attention, not merely to the words one is uttering, but to the situation in which one is uttering them.

I do not see why we should not add to these two classes of linguistic rules a further class, the subscriptive conventions, e.g. that which forbids me to say in court under oath that I saw the prisoner kill the policeman, and then claim that I had been joking; or to draw, sign, and hand over a cheque, and then say I was only play-acting, when I am not on the stage. These are certainly linguistic rules, in that they determine what I commit myself to by what I say. That there are extra-linguistic penalties for breaches of them does not distinguish them from other linguistic rules; if I say the prisoner killed the policeman when he only struck him, I am breaking a descriptive rule but may still be subject to the penalties of periury.

Having dealt all too sketchily with the tropic and neustic, I now come to the third and last particle on my list, which I shall call the sign of

¹² J. L. Austin, Philosophical Papers, Oxford, Oxford University Press, 1961, pp. 89 ff., repr. from Proceedings of the Aristotelian Society, 1950.

completeness or clistic, from the Greek word for 'to close'. The commonest clistic in ordinary language is the full stop; but this has other uses too, which make a concise account of it hard to give. A well-designed clistic would, it seems to me, take one of two forms; and the difference between them arouses in me a suspicion that we have here not one possible subatomic particle but two. The first is the sign of concatenation, which is familiar among logicians and linguists. In his original notation, Frege's formulae were well and truly concatenated; after the vertical stroke which was his sign of subscription, there was, attached to it, the horizontal stroke, which he originally referred to as the content-stroke, but later abandoned the term. To this content-stroke the rest of the formula was literally attached: it branched out like a procumbent tree to signify the articulation of the proposition subscribed to, with conjunctions, disjunctions, etc.; and on the right-hand side, at the ends of the branches, he put the elementary propositions which were being combined in this complex logical formula.

This notation was abandoned, no doubt because it was typographically so expensive and inconvenient; but its passing seems to me to have led to the neglect of an aspect of sentence-formation which ought not to be forgotten. This is the necessity for somehow holding together the constituent parts of a sentence, not merely as a lot of live piglets might be held together by an insensitive farmer in a sack, but in an articulate or structured way, each constituent having its place. It is interesting that linguists, in their efforts to represent deep structure (which is hardly different from what used to be called logical form) have had recourse to a very similar and typographically just as expensive device, the so-called 'tree', which also relies on lines joining up the constituent elements in an ordered structure. Both these devices illustrate graphically, and more clearly than most logical symbolisms, the important notion that sentences are organized wholes and that it has to be clear, not only what belongs to the sentence and what does not, but where in the sentence it belongs. Linguists of a slightly earlier vintage used as a sign of concatenation, in dealing with surface structure, plus-signs between the morphemes, and logicians have done much the same with concatenation-signs shaped like saucers or inverted saucers linking the symbols. Neither of these devices is so good, because they do not bring out the features of order and articulation (including branching) that I have just stressed.

Because it brings out this feature, what I shall call the Frege-style clistic has great advantages; but there is one disadvantage. It does not make so clear the necessity for indicating where the formula begins or ends. Perhaps we could say that it must begin with the vertical stroke or sign of subscription; but how do we know where we have to stop in any other direction? Could not bits be added on at top or bottom, left or right? Are we to say that they could not, because the rule is that only elements

joined to the vertical stroke by a continuous line belong to the sentence? In other words, are we to say that what confines the sentence in this notation is the white paper on which sentences are printed; a sentence is an island with a very indented coastline, entirely surrounded by white paper? Unfortunately this would not do; for we have done nothing to prevent people adding bits to Frege's island or tree by putting in more branches. We would do better to insist that the sentence was written on one or on a series of horizontal lines, and that other lines were drawn enclosing the sentence or other expression that was 'all that was being said'.

This, in fact, is what Her Majesty's Customs do, and what banks do. In customs declarations one has to make a list of the articles to be declared, and then draw a line all round the list (or at least at the bottom, printed lines sufficing for the other boundaries). This is to prevent anybody coming along afterwards and adding to the list; and banks used to insist on a horizontal line after the amount in words, to prevent it being added to (now they insist instead on ending with the pence in figures or the word 'only', which has the same effect). And the Morse Code gives us sequences for 'Message begins' and 'Message ends'.

I will now illustrate the logical utility of such devices. Suppose that we are listening to a radio commentary on a cricket match, and the commentator says 'He's caught it. He hasn't, he's missed it'. In writing this down, we would put a full stop after the first sentence. Nobody thinks that the commentator has made any self-contradictory statements, though of course he has corrected an earlier statement by uttering another statement which is the contradictory of it. He has thus contradicted himself only in a weak sense. But if he had said 'He has caught it and he hasn't', he would have contradicted himself in the strong sense in which only utterers of self-contradictory sentences can do this. The difference between the single conjoint sentence 'He's caught it and he hasn't' and the pair of sentences 'He's caught it' and 'He hasn't', is therefore important for logic. The practice of putting the two premisses of a syllogism on two lines without any sign of conjunction between them needs to be re-examined for this reason. Aristotle is usually more careful. 14

In one place where I gave an earlier version of this paper, they had a seminar room with a blackboard that one could shut up with wooden doors, so that the room could be used for parties; and I wrote on the blackboard 'We are now in China if two and two make five', and closed one of the doors to cover up the 'if'-clause. I then got the audience to agree that what I had written on the board was false, but afterwards I

¹³ It seems that Dummett thinks otherwise (see op. cit., p. 336), though I am not sure that this is what he means.

¹⁴ See discussion in J. Lukasiewicz, Aristotle's Syllogistic, Oxford, Oxford University Press, 1951, p. 2.

opened the door and showed them that it was not. If I had written a full stop after the words 'We are now in China' on the exposed part of the board, I should not have been able to perform this trick.

Full stops are not always given this kind of function; a writer is, for example, held to have contradicted himself in the strongest sense if, in the course of a paragraph or even of a book, he makes statements which contradict one another; the full stops in between do not help him, because in books it is a convention that a writer is taken as subscribing to the conjunction of the statements printed therein. Commonplace-books and 'albums' like *Philosophical Investigations* are free from this convention, as are philosophical dialogues. I sometimes think, however, that Wittgenstein's thought would be a lot clearer if he had, as well as using full stops, put in names for the different characters in the dialogue, or, alternatively, put in, in front of the propositions to which he himself wished to *subscribe*, the sign of subscription about which he is so contemptuous.

I shall not have room to say any more about the individual particles I have mentioned. My guess is that, like their counterparts in physics, they are a great deal more numerous and various than one might at first suspect; I am therefore not claiming to have given a complete list. Nor shall I have room to answer any of the many questions that arise about the particles which I have listed. I will, however, raise some of them.

We need to ask what is left of the sentence if we subtract the tropic, neustic, and clistic. In earlier writings I called this the *phrastic*. ¹⁵ But if the clistic is like Frege's and serves to articulate the sentence into clauses, then we cannot take it away without destroying the articulation of the sentence and leaving behind a mere collection of unrelated bits. It might be better to have some other way of articulating the sentence (perhaps by putting 'hooks and eyes' on all the words, determining the 'part of speech' to which each belonged). The effect of this would be to make words fit into each other only in certain arrangements; each word would in fact carry with it a 'sentence-frame' into which other words would fit in certain, but only in certain, places. For example a subject-term would fit predicates but not (without some intermediary link such as 'is identical with') other subject terms. This suggestion is not original. It would free the term 'clistic' for a sign of enclosure, limiting the boundaries of a sentence.

A phrastic, then, would consist of an articulate combination of words, such that by adding to it a tropic we could give it a mood, and by adding a neustic we could subscribe to what was said in it. It would be required that the phrastic was complete in one sense of that expression; it would have to be such that it 'made sense' after a tropic and neustic were added

¹⁵ See my The Language of Morals, Oxford, Oxford University Press, 1952, p. 18.

to it. But what of the clistic? At what stage should we add this? If we add it at the very end after the neustic has already been added, then shall we be engaging in the somewhat fraudulent manœuvre of subscribing to what is said in a sentence, but leaving it open to ourselves to add bits to it afterwards if it suits us? Surely HM Customs would not allow this?

On the other hand, if we insist on leaving the neustic to the end, after the clistic has been added, we shall be certifying the sentence as 'all that is being said' when all has not been said; we still have to add the sign of subscription. But perhaps the problem is unreal. After all, I can draw up a customs declaration or cheque and put in marks to signify that that is all there is I have to declare or pay, and only after that sign it.

There is the problem, which has been discussed in the literature, of whether only whole sentences have tropics or moods, or whether subordinate clauses too must, or can, have them. I think that the discussions would have been clearer if neustics had been distinguished from tropics. This removes the main temptation to saying that subordinate clauses cannot have tropics, namely that nobody is subscribing to them. That is just a confusion. It seems fairly obvious that at least some subordinate clauses have tropics, though not neustics; for example commands in oratio obliqua.

I mentioned earlier the problem of how to distinguish between the meanings of the different tropics or mood-signs. There is also that of whether neustics can be of different kinds, or at least strengths. The use of the words 'insist' and 'suggest', mentioned above, seems to indicate that this is so. The idea has been carried further with the suggestion that we can have negations or denegations of neustics.¹⁷ This operation must of course be distinguished from ordinary internal negation (see above). It is not even quite the same as what has been called 'external negation', as in 'It is not the case that you ought'; for explicitly withholding subscription is not the same as subscribing to the statement that something is not the case.

Lastly, to what do truth-values attach—to whole subscribed-to utterances or speech acts, complete with neustics, or to these minus their neustics, or to tropics-cum-phrastics, or just to phrastics? I feel inclined to say, but without confidence, that different sets of values apply to different combinations. If a complete sentence with neustic, clistic, tropic, and phrastic is uttered, the *speaker* is open to an accusation of speaking falsely if the tropic is indicative and the phrastic specified something that is not actually the case. If we remove the neustic, then nobody is open to such an accusation, but the remaining clistic-cum-tropic-cum-phrastic expresses something which can be true or false (if, again, the tropic is indicative). The further removal of the clistic and the tropic leaves the

phrastic, which expresses something which cannot indeed be true or false, but can be or not be the case. If it is the case and the tropic is imperative, then the command is satisfied; if it is indicative, the proposition is true. A host of problems arises here which it would be interesting to explore; but space has run out, and I shall have to return to them.¹⁸

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¹⁸ Two papers on related topics have appeared in *Mind* since this paper was written and committed to the Urmson *Festschrift*. Neither makes necessary any alteration to my text, but some comments on both may be in order.

Michael Pendlebury's 'Against the Power of Force' (Mind, 1986, p. 361), contains some good insights and arguments, with which I broadly agree. They would, however, be clearer if he had at the start distinguished as I have between signs of mood and signs of subscription—a distinction of which he shows himself aware later in his paper. I cannot agree with him that it is helpful to try to explain the semantic significance of different moods in terms of different satisfaction-conditions. The latter are conditions for the satisfaction of phrastics, and leave the meaning of the mood-sign untouched. Much darkness has been shed by looking for surrogates for truth-conditions in the case of prescriptions. To understand the meaning of the imperative mood-sign is, rather, to understand what difference the use of an imperative makes to the communicative situation, and in particular what requirements are thereby incurred by the speaker and others. For a very good account of these see W. Alston, 'Sentence Meaning and Illocutionary Act Potential', Ph. Exch., 1977, & iv f.

Jennifer Hornsby, in her 'A Note on Non-Indicatives' in the same volume, p. 92, demolishes Davidson's view so easily that it is surprising to find her remaining so deferential to him. Surprising, also, that after what has been written about it, she continues to believe in 'the clean separation of locutionary and illocutionary matters' (n. 12, p. 97; see p. 24 above and my 'Austin's Distinction between Locutionary and Illocutionary Acts', in my Practical Inferences, Basingstoke and London, Macmillan, 1971, p. 100). A possible explanation is that she seems to confuse Austin's phatic with his phonetic act (How to Do Things with Words, Oxford, Oxford University Press, 1962, p. 92). Clearly the phonetic act is distinct from the rhetic, but the boundary between phatic and rhetic is very shaky.

I think she is wrong to suppose that there are different senses of 'say' when used of saying something imperative and saying something indicative. Imperatives also have an oratio obliqua form (the 'indirect command' of the old grammarians), which in English is expressed with 'tell to', the analogue of 'tell that' (see p. 30 above); or, if 'say' is used, in the form 'She said that he was to go'. The indicativity of the 'that'-clause here is superficial, but although what is reported as having been said ('Go') was imperative, 'say' still means the same.

Her main suggestion revives an old dispute in a new form: the dispute as to whether what is embedded in a fully articulated imperative should be a complete indicative sentence, or rather a phrastic (sentence radical). I mentioned the point briefly in The Language of Morals, p. 21. I prefer the phrastic solution for two reasons. The first is that there is no need for an unsubscribed-to indicative tropic attached to the embedded phrastic of an imperative sentence. We do indeed, need to know the satisfaction- or being-the-case-conditions of the phrastic in order to understand the entire sentence (see pp. 35 f. above); and one simple way of conveying this understanding is to say what would be the truth-conditions of the corresponding indicative. (Another way would be simply to cuff those who did not obey one's commands correctly; and in this way a purely imperative language could be taught, similar to that envisaged in Philosophical Investigations, § 2, which Wittgenstein says in § 6 could be 'the mhole language' of its users.) It does not follow from this that the complete indicative has somehow to appear inside the imperative. The thought that it does may be due to the prejudice that truth-conditions are basic to all kinds of meaning, whereas they are basic, if at all, only to the meanings of indicatives. This prejudice has done harm in moral philosophy (see my 'A Reductio

ad Absurdum of Descriptivism', in Philosophy in Britain Today, ed. S. Shanker, Beckenham, Croom Helm, 1986, pp. 124 f., repr. in my Essays in Ethical Theory, Oxford, Oxford University Press, 1989).

The second reason is that, in Hornsby's formulation, if the so-called indicative that is embedded is made unambiguously indicative (e.g. by putting 'You are going to' instead of 'You will') the whole sentence then expresses a clearly false statement, because one cannot say an indicative imperatively. I do not find convincing her efforts to get out of this difficulty; the way out is to purge the embedded phrastic of its indicative tropic.