I. Are Discoveries about the Uses of Words Empirical?

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events we cannot regard the deductive model as even an ideal. The deterministic laws there, we can say with confidence, would be— if they existed—so complex that measuring the relevant variables would be far beyond our evidential resources. Consequently we adopt probabilistic explanation as the appropriate kind for those fields; since the fields are defined in terms of the kind of evidence available (history is *necessarily not* a special subsection of neurophysiology), it is self-contradictory to speak of deductive deterministic explanations as an ideal for history.

It seem to me clear that the same is generally—though not quite universally—true in physics. The nature of correspondence rules, bridge laws, models, the undefinability of theoretical constructs, the space-time continuum framework, all these and many other factors intrinsic to an understanding of physics *necessitate* the use of non-deductive probabilistic explanation. So that determinism in physics is not only dead but hardly mourned.

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THE NATURE OF ANALYSIS

I. ARE DISCOVERIES ABOUT THE USES OF WORDS EMPIRICAL?

SUPPOSE that we are sitting at dinner and discussing how a certain dance is danced. Let us suppose that the dance in question is one requiring the participation of a number of people— say one of the Scottish reels. And let us suppose that we have a dispute about what happens at a particular point in the dance; and that, in order to settle it, we decide to dance the dance after dinner and find out. We have to imagine that there is among us a sufficiency of people who know, or say they know, how to dance the dance—in the sense of "know" in which one may know how to do something without being able to *say* how it is done.

When the dance reaches the disputed point everybody may dance as they think the dance should go; or they may all agree to dance according to the way that one party to the dispute says it should go. Whichever of these two courses they adopt, there are several things which may, in theory, happen. The first is,

chaos—people bumping into one another so that it becomes impossible, as we should say, for the dance to proceed. The second is that there is no chaos, but a dance is danced which, though unchaotic, is not the dance which they were trying to dance—not, for example, the dance called "the eightsome reel." The third possibility is that the dance proceeds correctly. The difficulty is to say how we tell these three eventualities from one another, and whether the difference is empirical. It may be thought that, whether empirical or not, the difference is obvious; but I do not find it so.

It might be denied that there is any empirical difference between the first eventuality (chaos) and the second (wrong dance). For, it might be said, we could have a dance which consisted in people bumping into one another. In Michael Tippett's opera *The Midsummer Marriage* the character called the He-Ancient is asked reproachfully by a modern why his dancers never dance a new dance; in reply, he says "I will show you a new dance" and immediately trips one of the dancers up, so that he falls on the ground and bruises himself. The implication of this manoeuvre is the Platonic one that innovations always lead to chaos—that there is only one right way of dancing (the one we have learnt from our elders and betters) and that all deviations from this are just wrong. But whether or not we accept this implication, the example perhaps shows that we *could* call *any* series of movements a dance. If, however, we started to call it a dance, we should have to stop calling it chaos. The terms "dance" and "chaos" mutually exclude one another; but although we cannot call any series of movements *both* chaos *and* dance, we can call any series of movements *either* chaos *or* dance; so the problem of distinguishing dance from chaos remains.

The first and the second eventualities (chaos and wrong dance) are alike in this, that, whether or not we can say that *any* series of movements is *a* dance, we cannot say that *any* series of movements is *the* dance (viz., the eightsome real) about the correct way of dancing which we were arguing. It might therefore be argued that, although it may be difficult to say what counts as *a* dance, and thus distinguish between the first and second eventualities, we can at least distinguish easily between either of them and the third (right dance). And so we can, *in theory;* for obviously both the wrong dance, and chaos or no dance at all, are distinct from the right dance. That is to say, the terms of my classification of things that might happen make it analytic to say that these three things that might happen are different things. But all distinctions are not empirical distinctions (for example,

evaluative distinctions are not) ; and the question is rather, How, empirically (if it is done empirically), do we tell, of these three logically distinct happenings, which has happened? And how, in particular, do we tell whether the third thing has happened (whether the dance has been danced correctly) ?

Let us first consider one thing that might be said. It might be said: "The dance has been danced correctly if what has been danced is the dance *called* 'the eightsome reel.' " On this suggestion, all we have to know is how the expression "eightsome reel" is used; then we shall be able to recognize whether what has been danced *is* an eightsome reel. This seems to me to be true; but it will be obvious why I cannot rest content with this answer to the problem. For I am using the dance analogy in an attempt to elucidate the nature of the discovery called "discovering the use of words"; and therefore I obviously cannot, in solving the problems raised within the analogy, appeal to our knowledge of the use of the expression "eightsome reel." For this would not be in the least illuminating; the trouble is that we do not know whether knowing how the expression "eightsome reel" is used, is knowing something empirical. We shall therefore have to go a longer way round.

It may help if we ask, What does one have to assume if one is to be sure that they have danced the right dance? Let us first introduce some restrictions into our analogy in order to make the dance-situation more like the language-situation which it is intended to illustrate. Let us suppose that the dance is a traditional one which those of the company who can dance it have all learnt in their early years; let us suppose that they cannot remember the circumstances in which they learnt the dance; nothing of their early dancing-lessons remains in their memory except: how to dance the dance. And let us further suppose that there are no books that we can consult to see if they have correctly danced the dance—or, if there are books, that they are not authoritative.

What, then, in such a situation, do we have to rely on in order to be sure that we have really established correctly what is the right way to dance the eightsome reel? Suppose that someone is detailed to put down precisely what happens in the dance that the dancers actually dance—what movements they make when. We then look at his description of the dance and under certain conditions say, "Well then, *that* is how the eightsome reel is danced." But what are these conditions?

We have to rely first upon the accuracy of the observer. We have to be sure that he has correctly put down what actually hap-

pened in the dance. And to put down correctly what one actually sees happening is, it must be admitted, empirical observation and description. But what else do we have to rely on? We have to rely, it seems to me, on at least two other things. The first is that the dance which is being danced is indeed the eightsome reel; the second is that it is being danced right. These are not the same; for one may dance the eightsome reel but dance it wrong. For both these things we have to rely on the memory of the dancers; and, as I have said, it is not at all clear whether remembering something is making an empirical discovery.

The sort of situation which I have been describing is different from the sort of situation in which an anthropologist observes and describes the dances of a primitive tribe. This, it might be said, *is* an empirical enquiry. The anthropologist observes the behavior of the members of the tribe, and *he* selects for study certain parts of this behavior, namely, those parts which, by reason of certain similarities, *he* classifies as dances. And within the class of dances, *he* selects certain particular patterns of behavior and names them by names of particular dances—names which *he* (it may be arbitrarily or for purely mnemonic reasons) chooses. Here we have nothing outside the characteristic activities of the empirical scientist; we have the observation of similarities in the pattern of events, and the choosing of words to mark these similarities.

In the situation which I have been discussing, however, there are elements which there could not be in a purely anthropological enquiry. If a party of anthropologists sat down to dinner before starting their study of a particular dance, they could not fall into the sort of argument that I have imagined. Nor could they fall into it *after* starting the study of the dance. This sort of argument can only arise between people who, first of all, know how to dance the dance in question, but secondly are unable to say how it is danced. In the case of the anthropologists the first condition is not fulfilled. This difference between the two cases brings certain consequences with it. The anthropologists could not, as the people in my example do, know *what* dance it is that they are disputing about. In my example, the disputants know that what they are disputing about is how *the eightsome reel* is danced. They are able to say this, because they have learnt to dance a certain dance, and can still dance it, and know that if they dance it it will be distinctively different from a great many other dances which, perhaps, they can also dance. The anthropologists, on the other hand, have not learnt to dance the dance which they are going to see danced after dinner; and therefore, even if they have decided to *call* the dance that they are to see

danced "Dance no. 23" or "The lion dance" (supposing that they have been told that that is the name the tribe has for the dance), these names are for them as yet unattached to any disposition of theirs to recognize the dance when it is danced. The anthropologists will not be able to say, when a particular point in the dance is reached, "Yes, *that's* how it goes." They will just put down what happens and add it to their records. But the people in my example, when they say "eightsome reel," are not using an arbitrary symbol for *whatever* they are going to observe; the name "eightsome reel" has for them already a determinate meaning, though they cannot as yet say what this meaning is.

The second consequence is that, when my dancers have put down in words the way a dance is danced, the words that they put down will have a peculiar character. It will not be a correct description of their remarks to say that they have just put down how a particular set of dancers danced on a particular occasion; for what has been put down is not: how a particular set of dancers *did* dance on a particular occasion; but: how *the* eightsome reel *is* danced. It is implied that if *any* dancers dance like *this* they are dancing an eightsome reel correctly. Thus what has been put down has the character of universality—one of the two positive marks of the *a priori* noted by Kant (we have already seen that what has been put down has the negative characteristic which Kant mentioned, that of not being empirical). What about the other positive mark? Is what we have put down (if we are the dancers) *necessarily* true? Is it necessarily true that the eightsome reel is danced in the way that we have put down?

What we have put down is "The eightsome reel is danced in the following manner, viz. . . ." followed by a complete description of the steps and successive positions of the dancers. We may feel inclined to say that this statement is necessarily true. For, when we have danced the dance, and recognized it as an eightsome reel correctly danced, we may feel inclined to say that, if it had been danced differently, we *could* not have called it, correctly, an eightsome reel; and that, on the other hand, danced as it was, we could not have called it anything else. The statement which we have put down seems as necessary as the statement "A square is a rectangle with equal sides." I do not wish my meaning to be mistaken at this point. I am not maintaining that there is any temptation to say that the statement "The dance which we have just danced is an eightsome reel" is a necessary statement; for there is no more reason to call this necessary than there is in the case of any other singular statement of fact. The

statement which I am saying is necessary is "The eightsome reel is danced as follows, viz. . . ." followed by a complete description.

We may, then, feel inclined to say that this statement, since it has all the qualifications, is an *a priori* statement. But there is also a temptation to say that it is synthetic. For consider again for a moment the situation as it was before we began to dance. Then we already knew how to dance the eightsome reel, and thus for us the term "eightsome reel" had already a determinate meaning; and it would be plausible to say that since we knew the meaning of "eightsome reel" already before we started dancing, anything that we subsequently discovered could not be something attributable to the meaning of the term "eightsome reel"; and therefore that it could not be something analytic; and therefore that it must be something synthetic. Have we not, after all, *discovered* something about how the eightsome reel is danced?

There is thus a very strong temptation to say that the statement "The eightsome reel is danced in the following way, viz. . . ." followed by a description, is, when made by people in the situation which I have described, a synthetic *a priori* statement. Yet this, too, would be an odd result; for I could show, if I had time, that similar grounds could be given for considering all statements about how words are used as synthetic *a priori* statements. If, which I have seen no reason to believe, there is a class of synthetic *a priori* statements, it can hardly be as large as this. Probably what has to be done with the term "synthetic *a priori*" is to recognize that it has been used to cover a good many different kinds of statement, and that the reasons for applying it to them differ in the different cases. It is, in fact, an ambiguous label which does not even accurately distinguish a class of statements, let alone explain their character. What would explain this would be to understand the natures of the situations (as I said, not all of the same kind) in which we feel inclined to use the term; and this is what I am now trying, in one particular case, to do.

The peculiar characteristics of the situation which I have been discussing all arise from the fact (on which Professor Ryle has laid so much stress) that we can know something (e.g., how to dance the eightsome reel) without being able yet to say what we know. But the fact that it has these characteristics should not blind us to certain dangers. There is first the danger of thinking that it could not have been the case that the eightsome reel was danced in some quite different way. It is, of course, a contingent fact, arising out of historical causes with which I at any rate am unacquainted, that the dance called "the eightsome reel" has the form it has and not some other form. If it had some different

form, what my dancers would have learnt in their childhood would have been different, and what they would have learnt to call "the eightsome reel" would have been different too; yet the statement "The eightsome reel is danced in the following manner, etc.," would have had just the same characteristics as I have mentioned.

Next, there is the danger of thinking that if *anthropologists* were observing the dance, and had been told that the dance which they were to observe was called "the eightsome reel," *they*, in reporting their observations, would be making the same kind of statement—namely a non-empirical, universally necessary statement which at the same time was not analytic. They would not be making this sort of statement at all, but an ordinary empirical statement to the effect that the Scots have a dance which they dance in a certain manner and call "the eightsome reel."

Before I conclude this section of my paper and go on to describe more complicated kinds of dances which resemble talking even more closely, I have two remarks to make. The first is that unless *some* people knew how to dance dances, anthropologists could not observe empirically how dances are danced; and that therefore there could not be empirical discoveries about dances unless there were at least the possibility of the kind of non-empirical discovery that I have been characterizing. The situation is like that with regard to moral judgments; unless *some* people make genuine evaluative moral judgments, there is no possibility of other people making what have been called "inverted commas" moral judgments, or explicit or implicit descriptions of the moral judgments that the first set of people make.

The second remark is that I have nothing to say in this paper which sheds any direct light on the question (often confused with the one which I am discussing)—the question of the distinction between logic and philology. The features which I am trying to pick out are features as well of philological as of logical discoveries —and this makes them more, not less, perplexing.

I will now draw attention to some differences between the comparatively simple dance-situation which I have been discussing so far and the language-situation which is the subject of this paper. Talking is an infinitely more complex activity than dancing. It is as if there were innumerable different kinds of step in dancing, and a dancer could choose at any moment (as is to a limited extent the case in ball-room dancing) to make any one of these steps. Talking is in this respect more like ball-room dancing than like reels—there is a variety of different things one can do, and if one's partner knows how to dance, she reacts appropriately; but

to do *some* things results in treading on one's partner's toes, or bumping into other couples and such further obstacles as there may be, however well she knows how to dance. Nevertheless there are a great many things which one can do; and not all of them are laid down as permissible in rules which have been accepted before we do them. There can be innovations in dancing and in speech—and *some* of the innovations are understood even though they are innovations.

Both dancing and talking can became forms of creative art. There are kinds of dancing and of talking in which the performer is bound by no rules except those which he cares to make up as he goes along. Some poetry is like this; and so is "creative tap dancing" (the title of a book which once came into my hands). The most creative artists, however, are constrained to talk or dance *solo*. It is not about these highest flights of talking and dancing that I wish to speak, but about those more humdrum activities which require the coöperation of more than one person, and in which, therefore, the other people involved have to know a good deal about what sort of thing to expect one to do, and what they are expected to do in answer. It is in this sense that I am speaking of "knowing how to dance" and "knowing how to talk."

What makes coöperation possible in both these activities is that the speaker or dancer should not do things which make the other people say "We don't know what to make of this." That is to say, he must not do things which cannot be easily related to the unformulated rules of speaking or dancing which everybody knows who has learnt to perform these activities. The fact that these rules are unformulated means that to learn to formulate them is to make some sort of discovery—a discovery which, as I have said, cannot be described without qualification as an empirical one. If a person in speaking or in dancing does something of which we say "We don't know what to make of this," there are only two ways of re-establishing that *rapport* between us which makes these coöperative activities possible: either he must explain to us what we *are* to make of what he has done; or else he must stop doing it and do something more orthodox. He must either teach us his new way of dancing or talking, or go on dancing or talking in our old way.

It might be said, dancing is not like talking, because dancing is a gratuitous activity, and talking a purposeful one; therefore there are things that can go wrong in talking that cannot go wrong in dancing—things which prevent the purposes of talking being realized. This I do not wish to deny; though the existence of this difference does not mean that there are not also the simi-

larities to which I have been drawing attention. And the difference is in any case not absolute. Some talking is gratuitous; and some dancing is purposeful. When dancing in a crowded ball-room we have at least the purpose of avoiding obstacles, human and inanimate. If we imagine these obstacles multiplied, so that our dance-floor becomes more like its analogue, that elusive entity which we call "the world," dancing becomes very like talking. And all dance-floors have at least a floor and boundaries of some kind; so no kind of dancing is *completely* gratuitous; all dancers have the purpose of not impinging painfully against whatever it is limits their dance-floor. And there are some markedly purposeful activities which, though not called dances, are like dances in the features to which I have drawn attention—for example, the pulling up of anchors (old style).

This analogy points to a way of thinking about our use of language which is a valuable corrective to the more orthodox representational view, in which "facts," "qualities," and other dubious entities flit like untrustworthy diplomats between language and the world. We do not need these intermediaries; there are just people in given situations trying to understand one another. Logic, in one of the many senses of that word, is learning to formulate the rules that enable us to make something of what people say. Its method is to identify and describe the various sorts of things that people say (the various dances and their steps) such as predication, conjunction, disjunction, negation, counting, adding, promising, commanding, commending,—need I ever stop? In doing this it has to rely on our knowledge, as yet unformulated, of how to do these things—things of which we may not even know the names, and which indeed may not *have* names till the logician invents them; but which are, nevertheless, distinct and waiting to be given names. Since this knowledge is knowledge of something that we have learnt, it has, as I have said, many of the characteristics of memory—though it would be incorrect, strictly speaking, to say that we *remember* how to use a certain word; Plato's word "recall" (ἀναμιμνῄσκεσθαι) is perhaps more apt.[1] As in the case of memory, however, we know, without being, in many cases, able to give further evidence, that we have got it right. And often the only test we can perform is: trying it out again. In most cases there comes a point at which we are satisfied that we have

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[1] In the full paper of which this is a sawn-off version, I drew attention to certain analogies between my own account of this difficult problem, and Plato's solution, in *Meno* 80 d ff., of a similar problem, viz., the paradox of analysis. I should like to think that my account of the matter is a demythologized version of Plato's.

got the thing right (in the case of speaking, that we have formulated correctly what we know). Of course, the fact that we are satisfied does not show that we are not wrong; but if once satisfied, we remain satisfied until we discover, or are shown, some cause for dissatisfaction.

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II. DO WE DISCOVER OUR USES OF WORDS?

MR. Hare builds his paper on analogy between physical skills and the uses of language. People with physical skills may be able to perform certain activities without being able to say what they do or what rule they follow. The contrast between what one does and how one describes what one does is perfectly clear and no one, to take Mr. Hare's example, would confuse dancing the eightsome reel with describing the dance. This distinction is no longer clear, however, when one comes to language and it is by no means apparent that one can always know how to use a word without being able to say how it is used. To take a simple example, a person would hardly be said to know how to use the term "father" unless he could decide on logical grounds the truth of the sentence, "A father is a parent," "A father is a male," and "All male parents are fathers." Yet one way of giving at least a rough formulation of the rules for using the term "father" would be to say "Use 'father' synonymously with 'male parent.'" Thus knowing how to use the term involves knowing some of the rules of use and knowing them not merely in the sense of being able to follow them, but in the sense of being able to formulate them. More generally terms have, among other uses, uses in statements which are logically true, and among these are analyses and definitions.

It may be the case, therefore, that one cannot know how to use a term without also knowing how to analyze it. Certainly one cannot know all the uses of a term without knowing its analysis, but "knowing how to use a term" is a loose expression and probably does not require knowing all the uses. I would not want to insist that what has been said about "father" applies equally to every other term, and while I would think that one could not know how to use the term "father" without knowing its definitions, there would be other terms such as "space" and "substance" where one could. At most a partial set of rules would be required and perhaps not even that. My point, however, is not that knowing the use of a term always requires knowing its analysis, but rather that the distinction between knowing how to act and saying