"always have some specific qualitative property corresponding precisely with each specific difference in the object." I understand him to mean that where, *e.g.*, a sound appears to me at first very loud and then to die away, there is no absolute necessity to suppose that the cognitive act in which it appears to me to be loud is qualitatively different from that in which it appears to me to be faint. But obviously, if the absolutely specific character which it appears to me to have, in the one case, and the different absolutely specific character which it appears to me to have in the other, are constituents respectively of the two acts, it *is* absolutely necessary that the two acts should be qualitatively different.

III.—By C. D. BROAD.

THE form of our question seems to presuppose three points as agreed by everyone: (i) That there are cognitive acts; (ii) That there is some characteristic common to all of them, but presumably not confined to them, in virtue of which all are called "acts"; (iii) That there is another characteristic common to all of them, but peculiar to them, in virtue of which they are called "cognitive" and distinguished from other kinds of "acts." Then we might ask ourselves (a) What is understood by an act? (b) What is meant by "cognitive"? Is it something that can be analysed and defined or can we merely point to typical instances of it? (c) Is there any reason to suppose that there are such entities as "cognitive acts" in these senses of "act" and of "cognitive"? and (d) If so can we find any characteristics common and peculiar to cognitive acts beside the fact that they are cognitive?

As regards (c) Professor Laird holds that it is possible to doubt the existence of cognitive acts, but that this doubt can be removed by reflection and argument. Dr. Moore holds that in a certain sense of "cognitive act" there can be no doubt that such things exist. Since no sane person could doubt that cognitive acts, in Dr. Moore's sense, exist; whilst Professor Laird holds that some persons actually have doubted the existence of cognitive acts; it is pretty clear that Professor Laird does not mean by cognitive acts what Dr. Moore means by them. Now I agree with Dr. Moore that it is highly desirable to start our discussion with something that everyone agree exists. And the only way in which we can do this is to define by extension what we are going to discuss. Dr. Moore says that he means by a "cognitive act" something which exists whenever anyone sees or hears or tastes or . . . anything. Tf we attempt to define or describe cognitive acts by intension, i.e., by stating certain characteristics which we hold to be common and peculiar to them, it is practically certain that someone or other who is as sane as we are will doubt or disbelieve that such things exist.

I think the cause of the apparent difference of opinion between Professor Laird and Dr. Moore as to the possibility of doubting the existence of cognitive acts arises simply because Professor Laird defines them by intension and Dr. Moore by extension. It is perfectly obvious that Professor Laird has at the back of his mind some definition of "acts" by intension, and he holds that some people-I think, e.g., he has the Behaviourists and the Neutral Monists in view-would not agree that anything in the world answers to his definition. If these people could prove their contention to him I take it that Professor Laird would say: "Then there are no cognitive acts in my sense of the word." The unfortunate thing is that in his paper Professor Laird never has stated what he understands by a cognitive act; he has told us various things which he believes about them, but has not made it clear whether all of them are additional truths about cognitive acts in his sense, or whether some of them are part of what he means by a cognitive act.

We are, therefore, brought to our question: (a) What is under-

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stood by an act? Professor Laird seems to me to have a good excuse in the customary usage of language for thinking that there is a more or less agreed definition of "acts" in the sense in which we talk of "mental acts." And he is justified by historical facts in thinking it possible that some persons might doubt whether anything answers to that definition. Of course Dr. Moore has a right to define what he is going to mean by cognitive acts so long as he keeps to his definition throughout his argument, as he does. And everyone admits that cognitive acts exist if the phrase "cognitive act" is just a general name for seeings, hearings, smellings, rememberings, etc. But most people would call these admitted entities " cognitions," and would hold that to call them "acts" is to go further and to imply that they can and must be analysed in a certain special way or set of ways. The general mode of analysis presupposed by the use of the word "act" would seem to be somewhat as follows. Taking "my seeing x" as a typical cognition, it is called an act if, and only if, it be analysable into a mental term, a certain dyadic relation, and x. There is a good deal of ambiguity as to how this analysis is to be performed, and this leads to certain further ambiguities in the use of the word act. Some people would analyse "my seeing x" into (I)—seeing—(x). In that case, so far as I can make out, the whole complex bound together by the relation of seeing might be called an act. On that analysis and with this sense of "act" the object x is a constituent of the act. But, with the same analysis, I think that some people would call the relation of seeing an act, and not the complex as a whole. With this sense of act the object x is not a constituent of the act, though it is a constituent of the cognition which is "my seeing x." Again, others would analyse the same cognition into (my seeing)—of—(x); and, of course, there might be endless further differences of opinion as to how, if at all, the apparently complex entity "my seeing" is to be analysed. On this analysis I understand that the entity called "my seeing" would count as the act. And on this view again the object x

would not be a constituent of the act, though it would be a constituent of the cognition. The point of agreement seems to be that we must only talk of cognitive acts if a cognition can be analysed in some way or other into two terms, one of which is mental, and a dyadic relation between them. On one analysis the act is either the cognition as a whole or the relating relation of this whole. On another analysis the act is the mental term in the cognition. And it is only on the first of these three alternatives that the object is a constituent of the Now. I cannot be certain which of these alternatives act. Professor Laird has in mind. But I am sure that he takes the possibility of one of these modes of analysis as the definition of an act; and, if all such analyses of cognition should turn out to be impossible, he would, I think, say: "Of course, there are cognitions, but there are no cognitive acts." He would, I take it, say that, if Dr. Moore's analysis of perception be right, then perceptions are not acts. It seems pretty clear from some of Professor Laird's statements that he tacitly rejects one of the three alternatives that I have mentioned, viz., the view which identifies the cognitive act with the cognition. For this view makes the object a constituent of the act; and he apparently rejects this by implication when he says that the same act can have different objects. So I suppose that he either holds that cognition can be analysed into a mind and an object, and calls the relation between the two a cognitive act; or holds that cognition can be analysed into a mental term which is not a mind (something such as "my seeing") and an object, and calls this peculiar mental term an act.

If I am right the statements that Professor Laird makes about cognitive acts will fall into two classes. Where he is trying to prove against possible objections that cognitive acts exist, what he is really doing is trying to show that cognitions must be analysed in one of the ways that agrees with his tacitly assumed definition of acts. Elsewhere, presumably, he is stating further propositions which he believes to be *true* of all cognitive acts, but not to be a part of what he *means* by them.

Dr. Moore is surprised that Professor Laird should speak as if to every cognitive act there were some one thing that could be called the object of it. But this is not at all surprising if Professor Laird tacitly assumes a definition of act such as I have been suggesting. For an essential part of that definition is the analysis of all cognitions into a mental part and a dyadic relation between it and what is called the object. Even if this object be complex, it must be the complex as a whole, and not its separate parts, to which the mental factor is related in the cognition; for otherwise the cognition would not be a dyadic complex, and therefore would not answer to the definition of an Thus anyone who believes that cognitions are capable of act. the sort of analysis that is implied by the phrase "cognitive act" will have to hold that there is something that can be called the object of the cognitive act.

Professor Laird's arguments to prove that there are cognitive acts consist in showing that in many cases propositions are admitted to be true of cognitions which are incompatible with propositions that are admitted to be true of the objects cognized. E.g., the cognition is mental, whilst the objects may be physical. Again, the cognitions are in time whilst the objects may be timeless or may have a different date. The first argument does not seem to me to be a very strong one, since it is very difficult to be sure what we mean by physical and mental, and it is therefore uncertain whether the same entity might not be both at once. It is harder to believe that one and the same entity could be both present and past. I know, of course, that in modern physics such things are said, and said truly, of events; but this would not invalidate Professor Laird's argument, because such statements are only made true and intelligible by pointing out that when an event is both present and past it is so with respect to two different sets of events. I should therefore agree that these arguments, as a whole, do

prove with practical certainty that cognitions and the objects cognized are not in general identical. I agree, of course, with Dr. Moore that they do not prove or strongly suggest that in no case can the two be identical. But, even if they did prove this, it were a very short step on the way to proving that they are analysable in the mode required by the act theory. It is necessary for this theory to prove that cognition and object differ; since it needs to show that a cognition is a complex of which the cognized object is a term, and this is impossible if the cognition be the cognized object. But it is certainly nothing like sufficient. If the cognition be a complex of any structure whatever with the cognized objects as terms in it, some things will be true of the cognition which are not true of the cognized objects. We are, therefore, in no way tied down to the particular sort of structure assumed by the act theory, viz., a pair of terms, one of which is mental, the other of which is the cognized object, and a dyadic relation between them.

Granted that there is nothing in mere incompatibility of properties to force us to this analysis, is there anything in the particular properties mentioned by Professor Laird which will necessitate the act theory? Let us consider them in turn: (α) The cognition is mental and the objects may be physical. Does this prove that the cognition must contain a term which is mental? Surely not. Why should not a complex as a whole have the property of being mental though it consists of a set of related terms none of which is mental, just as an army has certain properties that belong to none of the soldiers in it? (β) The cognition may in some sense be present whilst some or all of its objects are past. Now it does seem hard to believe that a complex could as a whole be present while some of its terms were past. And this does naturally suggest that it is not really the cognition, in our sense, that is present. It suggests that the cognition is a complex which cannot strictly be called, as a whole, present or past; but that it is analysable into a present part-the cognitive act-and a past part-the remem-

bered objects. Thus the facts of memory do rather favour the act analysis for that special kind of cognition. Now, if we are forced to this sort of analysis by the facts, it seems to me that we shall be forced to a certain definite one of the various act theories: (i) We must reject the theory that act = cognition, because here it was the very fact that something seemed to be present and this something could not be the cognition as a whole,-containing, as it does, a past constituent,-that forced us to analyse the cognition into act and object. (ii) If it is to be the act that is present, it is difficult to see that the act can be the relation between me and the remembered object. If "my remembering x" is to be analysed into "(I)-remembering-(x)" the relation of remembering stretches from present to past, and it is difficult to see why it should be called a present act. Thus (iii) if the facts of memory do force us to the act theory at all they would seem to force us to the particular form of the theory which analyses "my remembering x" into (my remembering)—of—(x), and counts the present act as the entity called "my remembering." The question still remains however: Do the facts of memory force on us an analysis in accordance with the act theory? I think it is certain that they do not. In a memory cognition, if it be granted that the objects remembered are constituents of it, we must grant that something is present and something is past. And it is no doubt difficult to believe that a complex whole could be present if any of its terms were past. It is therefore plausible to suppose that such cognitions are complexes containing some terms that are present and others that are past, related by some sort of relation that stretches across time. But it does not in the least follow either that this relation is dyadic or that the term in such a complex which is present is itself mental. As before it may be the complex as a whole, and that alone, which is mental. So the facts about memory do not force us to any form of the act theory; though, if we choose to adopt the act theory,

they suggest one form of it much more strongly than the others.

 (γ) The next special difference between an act and its object is said to be that the one is a particular event with a date in time whilst the other may be a universal. *E.g.*, at a certain moment I can think about the isosceles triangle and its properties. I take it that the argument here again is that this proves that the cognition must be analysable into a constituent which is particular and a constituent which is timeless and universal, and that the former is an act. As before I agree that the facts probably do force us to recognize that the cognition is a complex in these cases, and that some of its terms are particular and others universal. But I do not see that they force us to suppose that any one of the particular terms is as such mental, or that the relation which binds the terms together into the cognition of a universal must be dyadic.

To sum up. Professor Laird's facts and arguments do strongly suggest that certain cognitions are what I might call "heterogeneous complexes;" but they seem to me to throw no light whatever on the constitution of these complexes, *i.e.*, on the nature of their relating relations. And they give no reason to think that one of the terms in such a complex is mental, or in fact that anything is mental except the whole complex cognition. Thus they do not appear to me to prove the existence of cognitive acts in the sense defined by me, and in the sense which it seems to me that Professor Laird tacitly assumes.

I now turn to certain further statements which Professor Laird makes about cognitive acts. He says that they can be detected by introspection, though he argues quite consistently that this may give us but vague information about their details. And he says that if they were not known by introspection the belief in their existence would be rash and precarious. Now my own view is that acts in Professor Laird's sense are not known by introspection, that the belief in them is founded on inference, and that it is rash and precarious. It seems to me that if anything is known by introspection it is cognitions, and that we do not know by introspection that cognitions are analysable in either of the ways presupposed by the act theory. If this be so, introspection will not tell us either that cognitions as such are acts, or that they contain certain parts which are acts, or a certain dyadic relation which is an act. It is commonly said that the difficulty of introspecting acts is that acts seem to be "transparent" and that when you look for an act you only find objects. Now I take the truth of this to be that the real objects of such introspection are cognitions, and that these are complexes containing certain non-mental terms. What we become aware of by introspection is primarily the complex, and always at the same time the non-mental terms in it, which are called the objects of the cognition. But we do not seem to become aware of any mental term in such complexes, nor at all distinctly of the relating relation. This of course does not prove that in fact cognitions do not contain a mental term nor that their relating relation is not in fact dyadic. But I must confess that my own introspection leaves me absolutely ignorant on this matter. Certainly in introspection I become aware of something mental; but my own introspection does not tell me that this is a certain part of the cognition rather than that it is the cognition as a whole. As far as introspection is concerned I see nothing to choose between Professor Laird's tacitly assumed view of the structure of perceptions and Dr. Moore's quite different view. I do not in the least believe that the act analysis is known by introspection; it is just the simplest sort of analysis, and we naturally prefer to start by trying what can be done with two-term relations before passing to more complex theories. If any decision can be made between the innumerable theories of the structure of cognitions which could be put forward and which would all be equally compatible with anything that introspection tells us, I

imagine that it must be made on epistemological grounds. Examples of what I mean are presented by Mr. Russell's penultimate (unless it be now antepenultimate) theory of judgment, and by the theory of perception put forward by Dr. Moore in the present discussion. Introspection does not tell us in the least whether judgment involves a dyadic or a polyadic relation, but the former theory does seem to lead to difficulties about truth and falsehood which the latter in some measure avoids. These epistemological considerations are, I imagine, the sole grounds on which we could choose between a theory of the structure of judgment such as Russell's and a simpleminded act theory such as that of Meinong and his pupils. The same remarks seem to me to apply to Dr. Moore's present view about the structure of perceptions. Introspection seems to have nothing to say one way or the other, and I imagine that the main motive of Dr. Moore's present theory is that he hopes that it will overcome certain difficulties about the nature of the external world and our supposed knowledge of it which are very pressing on the view that sensation is analysable into a two-term relation between our minds, or some state of our minds, and a sensum.

Professor Laird gives other reasons to prove that we do know cognitive acts by introspection. One is that we recognize that we can have different attitudes towards the same object. Evidently his view is that this implies that in the cognition the attitude and the object are distinct factors and that the attitude can be introspectively recognized. But obviously the facts are equally compatible with the view that all that is ever introspected is the cognition as such, that cognitions consist simply of their objects bound together by certain characteristic relations, that the same objects may be bound together by different sorts of relation, and that the different complexes thus constituted appear different to introspection. They do not necessitate the view that the attitude is a peculiar kind of mental term related dyadically to the object, or that it is a dyadic relation between the mind and the object. And one or other of these views seems to me to be implied by Professor Laird's use of the word "act." My own view of the whole matter is that I am very doubtful whether there is anything common and peculiar to what we call cognitions, except the fact that they are cognitive. And this characteristic, I think, cannot be defined or analysed but can only be illustrated by example. Each special kind of cognition has to be treated on its merits; most of them are almost certainly complex; but introspection gives us practically no guide as to their structure, and nothing but epistemological considerations will enable us to decide between alternative theories about the structure of each kind of cognition. It is probable that even such considerations only cut out a few alternative theories and leave numberless others standing.

Dr. Moore would go one step further than this and hold that probably all cognitions are complex. His position is that what he calls "perceptions" are the only cases that could reasonably be supposed not to be complex, and that even in this case we can show them to be heterogeneous complexes containing at least a sensum and a universal related by a certain peculiar relation. Probably the strongest case that could be taken of a cognition that might plausibly be identified with its object is a bodily feeling like headache or toothache. To most of us it does seem that a red patch and the seeing of a red patch are different, but it seems more doubtful whether there is any difference between a toothache and the feeling of a toothache. It is perhaps worth while to remark that just in proportion as doubt becomes possible on this point we hesitate to use the word "cognition" and prefer to talk of "feeling." I cannot adequately discuss Dr. Moore's extremely interesting theory of the proper analysis of perceptions, which involves the view that there is a fundamental kind of relation between a sensum and a universal, denoted by the phrase "appearing to have some specification of the universal." If there be such a relation it seems

likely that it must be at least triadic, if two people can be aware of the same sensum at once. For a sensum cannot appear to me to have two different specifications of the same universal at the same time, whilst if you and I ever are aware at once of the same sensum, it can appear to me to have one shade of colour, e.g., and to you to have a different shade. Dr. Moore argues that on his analysis, and on that alone, it is certain that a sensum differs from the seeing of it. His argument appears to be that on his view the seeing of x contains both x and a universal, whilst the mere existence of x only involves x. This does not seem to me conclusive, but I may have misunderstood him. I suppose that any sensum, in fact, has some qualities. If so, the existence of x does involve a relation of "participation," or whatever you choose to call it, between x and certain universals. It is a different relation from that of "appearing to have," but it is a relation between x and a universal. Thus, even if the seeing of x were identical with the existence of x, the seeing of x would be a complex containing x and certain universals. Hence, to prove that the seeing of x is such a complex does not suffice to prove that it differs from the existence of x. The proof of difference must depend, so far as I can see, on the proof that "appearing to have" is a different relation from "having," and that the former characterizes perceptions, whilst the latter characterizes sensa. But I am very probably talking nonsense, and I have no doubt that Dr. Moore will correct me.

IV.-By G. DAWES HICKS.

WE are supposed to be discussing the *character* of cognitive acts, but so far the discussion has largely turned on the question whether there are such things. Dr. Moore has, however, attempted to determine what it is that we are entitled to describe as a cognitive act. If I correctly follow his acute and