Question: How do you define a negative fact?

Mr. Russell: You could not give a general definition if it is right that negativeness is an ultimate.

# IV. PROPOSITIONS AND FACTS WITH MORE THAN ONE VERB; BELIEFS, ETC.

You will remember that after speaking about atomic proposiitons I pointed out two more complicated forms of propositions which arise immediately on proceeding further than that: the first, which I call molecular propositions, which I dealt with last time, involving such words as 'or', 'and', 'if', and the second involving two or more verbs such as believing, wishing, willing, and so forth. In the case of molecular propositions it was not clear that we had to deal with any new form of fact, but only with a new form of proposition, i.e., if you have a disjunctive proposition such as 'p or q' it does not seem very plausible to say there there is in the world a disjunctive fact corresponding to 'p or q' but merely that there is a fact corresponding to p and a fact corresponding to q, and the disjunctive proposition derives its truth or falsehood from those two separate facts. Therefore in that case one was dealing only with a new form of proposition and not with a new form of fact. To-day we have to deal with a new form of fact.

I think one might describe philosophical logic, the philosophical portion of logic which is the portion that I am concerned with in these lectures since Christmas (1917), as an inventory, or if you like a more humble word, a 'zoo' containing all the different forms that facts may have. I should prefer to say 'forms of facts' rather than 'forms of propositions'. To apply that to the case of molecular propositions which I dealt with last time, if one were pursuing this analysis of the forms of facts, it would be *belief in* a molecular proposition that one would deal with rather than the molecular proposition itself. In accordance with the sort of realistic bias that I should put into all study of metaphysics, I should always wish to be engaged in the investigation of some actual fact or set of facts, and it seems to me that that is so in logic just as much as it is in zoology. In logic you are concerned with the forms of facts, with getting hold of the different sorts of facts, different logical sorts of facts, that there are in the world. Now I want to point out to-day that the facts that occur when one believes or wishes or wills have a different logical form from the atomic facts containing a single verb which I dealt with in my second lecture. (There are, of course, a good many forms that facts may have, a strictly infinite number, and I do not wish you to suppose that I pretend to deal with all of them.) Suppose you take any actual occurrence of a belief. I want you to understand that I am not talking about beliefs in the sort of way in which judgment is spoken of in theory of knowledge, in which you would say there is the judgment that two and two are four. I am talking of the actual occurrence of a belief in a particular person's mind at a particular moment, and discussing what sort of a fact that is. If I say 'What day of the week is this?' and you say 'Tuesday', there occurs in your mind at that moment the belief that this is Tuesday. The thing I want to deal with to-day is the question. What is the form of the fact which occurs when a person has a belief. Of course you see that the sort of obvious first notion that one would naturally arrive at would be that a belief is a relation to the proposition. 'I believe the proposition p'. 'I believe that to-day is Tuesday'. 'I believe that two and two are four'. Something like that. It seems on the face of it as if you had there a relation of the believing subject to a proposition. That view won't do for various reasons which I shall go into. But you have therefore got to have a theory of belief which is not exactly that. Take any sort of proposition, say 'I believe Socrates is mortal'. Suppose that that belief does actually occur. The statement that it occurs is a statement of fact. You have there two verbs. You may have more than two verbs, you may have any number greater than one. I may believe that Jones is of the opinion that Socrates is mortal. There you have more than two verbs. You may have any number. but you cannot have less than two. You will perceive that it is not only the proposition that has the two verbs, but also the fact, which is expressed by the proposition, has two constituents corresponding to verbs. I shall call those constituents verbs for the sake of shortness, as it is very difficult to find any word to describe all those objects which one denotes by verbs. Of course, that is strictly using the word 'verb' in two different senses, but I do not think it can lead to any confusion if you understand that it is being so used. This fact (the belief) is one fact. It is not like what you had in molecular propositions where you had (say) 'p or q'. It is just one single fact that you have a belief. That is obvious from the fact that you can believe a falsehood. It is obvious from the fact of false belief that you cannot cut off one part: you cannot have

# I believe/Socrates is mortal.

There are certain questions that arise about such facts, and the first that arises is, Are they undeniable facts or can you reduce them in some way to relations of other facts? Is it really necessary to suppose that there are irreducible facts, of which that sort of thing is a verbal expression? On that question until fairly lately I should certainly not have supposed that any doubt could arise. It had not really seemed to me until fairly lately that that was a debatable point. I still believe that there are facts of that form, but I see that it is a substantial question that needs to be discussed.

# I. Are beliefs, etc., irreducible facts?

'Etc.' covers understanding a proposition; it covers desiring, willing, any other attitude of that sort that you may think of that involves a proposition. It seems natural to say one believes a proposition and unnatural to say one desires a proposition, but as a matter of fact that is only a prejudice. What you believe and what you desire are of exactly the same nature. You may desire to get some sugar to-morrow and of course you may possibly believe that you will. I am not sure that the logical form is the same in the case of will. I am inclined to think that the case of will is more analogous to that of perception, in going direct to facts, and excluding the possibility of falsehood. In any case desire and belief are of exactly the same form logically.

Pragmatists and some of the American realists, the school whom one calls neutral monists, deny altogether that there is such a phenomenon as belief in the sense I am dealing with. They do not deny it in words, they donot use the same sort of language that I am using, and that makes it difficult to compare their views with the views I am speaking about. One has really to translate what they say into language more or less analogous to ours before one can make out where the points of contact or difference are.

If you take the works of James in his Essays in Radical Empiricism or Dewey in his Essays in Experimental Logic you will find that they are denying altogether that there is such a phenomenon as belief in the sense I am talking of. They use the word 'believe' but they mean something different. You come to the view called 'behaviourism', according to which you mean, if you say a person believes a thing, that he behaves in a certain fashion; and that hangs together with James's pragmatism. James and Dewey would say: when I believe a proposition, that means that I act in a certain fashion, that my behaviour has certain characteristics, and my belief is a true one if the behaviour leads to the desired result and is a false one if it does not. That, if it is true, makes their pragmatism a perfectly rational account of truth and falsehood, if you do accept their view that belief as an isolated phenomenon does not occur. That is therefore the first thing one has to consider. It would take me too far from logic to consider that subject as it deserves to be considered, because it is a subject belonging to psychology, and it is only relevant to logic in this one way that it raises a doubt whether there are any facts having the logical form that I am speaking of. In the question of this logical form that involves two or more verbs you have a curious interlacing of logic with empirical studies, and of course that may occur elsewhere, in this way, that an empirical study gives you an example of a thing having a certain logical form, and you cannot really be sure that there are things having a given logical form except by finding an example, and the finding of an example is itself empirical. Therefore in that way empirical facts are relevant to logic at certain points. I think theoretically one might know that there were those forms without knowing any instance of them, but practically, situated as we are, that does not seem to occur. Practically, unless you can find an example of the form you won't know that there is that form. If I cannot find an example containing two or more verbs, you will not have reason to believe in the theory that such a form occurs.

When you read the works of people like James and Dewey on the subject of belief, one thing that strikes you at once is that the sort of thing they are thinking of as the object of belief is quite different from the sort of thing I am thinking of. They think of it always as a thing. They think you believe in God or Homer: you

#### LOGIC AND KNOWLEDGE

believe in an object. That is the picture they have in their minds. It is common enough, in common parlance, to talk that way, and they would say, the first crude approximation that they would suggest would be that you believe truly when there is such an object and that you believe falsely when there is not. I do not mean they would say that exactly, but that would be the crude view from which they would start. They do not seem to have grasped the fact that the objective side in belief is better expressed by a proposition than by a single word, and that, I think, has a great deal to do with their whole outlook on the matter of what belief consists of. The object of belief in their view is generally, not relations between things, or things having qualities, or what not, but just single things which may or may not exist. That view seems to me radically and absolutely mistaken. In the first place there are a great many judgments you cannot possibly fit into that scheme, and in the second place it cannot possibly give any explanation to false beliefs, because when you believe that a thing exists and it does not exist, the thing is not there, it is nothing, and it cannot be the right analysis of a false belief to regard it as a relation to what is really nothing. This is an objection to supposing that belief consists simply in relation to the object. It is obvious that if you say 'I believe in Homer' and there was no such person as Homer, your belief cannot be a relation to Homer, since there is no 'Homer'. Every fact that occurs in the world must be composed entirely of constituents that there are, and not of constituents that there are not. Therefore when you say 'I believe in Homer' it cannot be the right analysis of the thing to put it like that. What the right analysis is I shall come on to in the theory of descriptions. I come back now to the theory of behaviourism which I spoke of a moment ago. Suppose, e.g., that you are said to believe that there is a train at 10.25. This means, we are told, that you start for the station at a certain time. When you reach the station you see it is 10.24 and you run. That behaviour constitutes your belief that there is a train at that time. If you catch your train by running, your belief was true. If the train went at 10.23, you miss it, and your belief was false. That is the sort of thing that they would say constitutes beer. There is not a single state of mind which consists in contemplating this eternal verity, that the train starts at 10.25. They would apply that even to the most

abstract things. I do not myself feel that that view of things is tenable. It is a difficult one to refute because it goes very deep and one has the feeling that perhaps, if one thought it out long enough and became sufficiently aware of all its implications, one might find after all that it was a feasible view; but yet I do not feel it feasible. It hangs together, of course, with the theory of neutral monism, with the theory that the material constituting the mental is the same as the material constituting the physical, just like the Post Office directory which gives you people arranged geographically and alphabetically. This whole theory hangs together with that. I do not mean necessarily that all the people that profess the one profess the other, but that the two do essentially belong together. If you are going to take that view, you have to explain away belief and desire, because things of that sort do seem to be mental phenomena. They do seem rather far removed from the sort of thing that happens in the physical world. Therefore people will set to work to explain away such things as belief, and reduce them to bodily behaviour; and your belief in a certain proposition will consist in the behaviour of your body. In the crudest terms that is what that view amounts to. It does enable you to get on very well without mind. Truth and falsehood in that case consist in the relation of your bodily behaviour to a certain fact, the sort of distant fact which is the purpose of your behaviour, as it were, and when your behaviour is satisfactory in regard to that fact your belief is true, and when your behaviour is unsatisfactory in regard to that fact your belief is false. The logical essence, in that view, will be a relation between two facts having the same sort of form as a causal relation, i.e., on the one hand there will be your bodily behaviour which is one fact, and on the other hand the fact that the train starts at such and such a time, which is another fact, and out of a relation of those two the whole phenomenon is constituted. The thing you will get will be logically of the same form as you have in cause, where you have 'This fact causes that fact'. It is quite a different logical form from the facts containing two verbs that I am talking of to-day.

I have naturally a bias in favour of the theory of neutral monism because it exemplifies Occam's razor. I always wish to get on in philosophy with the smallest possible apparatus, partly because it diminishes the risk of error, because it is not necessary to deny

220

the entities you do not assert, and therefore you run less risk of error the fewer entities you assume. The other reason-perhaps a somewhat frivolous one—is that every diminution in the number of entities increases the amount of work for mathematical logic to do in building up things that look like the entities you used to assume. Therefore the whole theory of neutral monism is pleasing to me, but I do find so far very great difficulty in believing it. You will find a discussion of the whole question in some articles I wrote in The Monist,\* especially in July 1914, and in the two previous numbers also. I should really want to rewrite them rather because I think some of the arguments I used against neutral monism are not valid. I place most reliance on the argument about 'emphatic particulars', 'this', 'I', all that class of words, that pick out certain particulars from the universe by their relation to oneself, and I think by the fact that they, or particulars related to them, are present to you at the moment of speaking. 'This', of course, is what I call an 'emphatic particular'. It is simply a proper name for the present object of attention, a proper name, meaning nothing. It is ambiguous, because, of course, the object of attention is always changing from moment to moment and from person to person. I think it is extremely difficult, if you get rid of consciousness altogether, to explain what you mean by such a word as 'this', what it is that makes the absence of impartiality. You would say that in a purely physical world there would be a complete impartiality. All parts of time and all regions of space would seem equally emphatic. But what really happens is that we pick out certain facts, past and future and all that sort of thing; they all radiate out from 'this', and I have not myself seen how one can deal with the notion of 'this' on the basis of neutral monism. I do not lay that down dogmatically, only I do not see how it can be done. I shall assume for the rest of this lecture that there are such facts as beliefs and wishes and so forth. It would take me really the whole of my course to go into the question fully. Thus we come back to more purely logical questions from this excursion into psychology, for which I apologize.

# 2. What is the status of p in 'I believe p'?

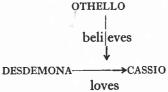
You cannot say that you believe *facts*, because your beliefs are \*[The three parts of this essay are the fifth paper in this collection.—R.C.M.]

sometimes wrong. You can say that you perceive facts, because perceiving is not liable to error. Wherever it is facts alone that are involved, error is impossible. Therefore you cannot say you believe facts. You have to say that you believe propositions. The awkwardness of that is that obviously propositions are nothing. Therefore that cannot be the true account of the matter. When I say 'Obviously propositions are nothing' it is not perhaps quite obvious. Time was when I thought there were propositions, but it does not seem to me very plausible to say that in addition to facts there are also these curious shadowy things going about such as 'That to-day is Wednesday' when in fact it is Tuesday. I cannot believe they go about the real world. It is more than one can manage to believe, and I do think no person with a vivid sense of reality can imagine it. One of the difficulties of the study of logic is that it is an exceedingly abstract study dealing with the most abstract things imaginable, and yet you cannot pursue it properly unless you have a vivid instinct as to what is real. You must have that instinct rather well developed in logic. I think otherwise you will get into fantastic things. I think Meinong is rather deficient in just that instinct for reality. Meinong maintains that there is such an object as the round square only it does not exist, and it does not even subsist, but nevertheless there is such an object, and when you say 'The round square is a fiction', he takes it that there is an object 'the round square' and there is a predicate 'fiction'. No one with a sense of reality would so analyse that proposition. He would see that the proposition wants analysing in such a way that you won't have to regard the round square as a constituent of that proposition. To suppose that in the actual world of nature there is a whole set of false propositions going about is to my mind monstrous. I cannot bring myself to suppose it. I cannot believe that they are there in the sense in which facts are there. There seems to me something about the fact that 'To-day is Tuesday' on a different level of reality from the supposition 'That to-day is Wednesday'. When I speak of the proposition 'That to-day is Wednesday' I do not mean the occurrence in future of a state of mind in which you think it is Wednesday, but I am talking about the theory that there is something quite logical, something not involving mind in any way; and such a thing as that I do not think you can take a false proposition to be. I think a false proposition

must, wherever it occurs, be subject to analyses, be taken to pieces, pulled to bits, and shown to be simply separate pieces of one fact in which the false proposition has been analysed away. I say that simply on the ground of what I should call an instinct of reality. I ought to say a word or two about 'reality'. It is a vague word, and most of its uses are improper. When I talk about reality as I am now doing, I can explain best what I mean by saying that I mean everything you would have to mention in a complete description of the world; that will convey to you what I mean. Now I do not think that false propositions would have to be mentioned in a complete description of the world. False beliefs would, of course, false suppositions would, and desires for what does not come to pass, but not false propositions all alone, and therefore when you, as one says, believe a false proposition, that cannot be an accurate account of what occurs. It is not accurate to say 'I believe the proposition p' and regard the occurrence as a twofold relation between me and p. The logical form is just the same whether you believe a false or a true proposition. Therefore in all cases you are not to regard belief as a two-term relation between yourself and a proposition, and you have to analyse up the proposition and treat your belief differently. Therefore the belief does not really contain a proposition as a constituent but only contains the constituents of the proposition as constituents. You cannot say when you believe, 'What is it that you believe?' There is no answer to that question, i.e., there is not a single thing that you are believing. 'I believe that to-day is Tuesday.' You must not suppose that 'That to-day is Tuesday' is a single object which I am believing. That would be an error. That is not the right way to analyse the occurrence, although that analysis is linguistically convenient, and one may keep it provided one knows that it is not the truth.

3. How shall we describe the logical form of a belief?

I want to try to get an account of the way that a belief is made up. That is not an easy question at all. You cannot make what I should call a map-in-space of a belief. You can make a map of an atomic fact but not of a belief, for the simple reason that spacerelations always are of the atomic sort or complications of the atomic sort. I will try to illustrate what I mean. The point is in connexion with there being two verbs in the judgment and with the fact that both verbs have got to occur as verbs, because if a thing is a verb it cannot occur otherwise than as a verb. Suppose I take 'A believes that B loves C'. 'Othello believes that Desdemona loves Cassio.' There you have a false belief. You have this odd state of affairs that the verb 'loves' occurs in that proposition and seems to occur as relating Desdemona to Cassio whereas in fact it does not do so, but yet it does occur as a verb, it does occur in the sort of way that a verb should do. I mean that when A believes that B loves C, you have to have a verb in the place where 'loves' occurs. You cannot put a substantive in its place. Therefore it is clear that the subordinate verb (i.e., the verb other than believing) is functioning as a verb, and seems to be relating two terms, but as a matter of fact does not when a judgment happens to be false. That is what constitutes the puzzle about the nature of belief. You will notice that wherever one gets to really close quarters with the theory of error one has the puzzle of how to deal with error without assuming the existence of the non-existent. I mean that every theory of error sooner or later wrecks itself by assuming the existence of the non-existent. As when I say 'Desdemona loves Cassio', it seems as if you have a non-existent love between Desdemona and Cassio, but that is just as wrong as a non-existent unicorn. So you have to explain the whole theory of judgment in some other way. I come now to this question of a map. Suppose you try such a map as this:



This question of making a map is not so strange as you might suppose because it is part of the whole theory of symbolism. It is important to realize where and how a symbolism of that sort would be wrong: where and how it is wrong is that in the symbol you have this relationship relating these two things and in the fact it doesn't really relate them. You cannot get in space any occurrence which is logically of the same form as belief. When I say 'logically of the same form' I mean that one can be obtained from the other by replacing the constituents of the one by the new terms. If I say 'Desdemona loves Cassio' that is of the same form as 'A is to the right of B'. Those are of the same form, and I say that nothing that occurs in space is of the same form as belief. I have got on here to a new sort of thing, a new beast for our zoo, not another member of our former species but a new species. The discovery of this fact is due to Mr. Wittgenstein.

There is a great deal that is odd about belief from a logical point of view. One of the things that are odd is that you can believe propositions of all sorts of forms. I can believe that 'This is white' and that 'Two and two are four'. They are quite different forms, vet one can believe both. The actual occurrence can hardly be of exactly the same logical form in those two cases because of the great difference in the forms of the propositions believed. Therefore it would seem that belief cannot strictly be logically one in all different cases but must be distinguished according to the nature of the proposition that you believe. If you have 'I believe p' and 'I believe q' those two facts, if p and q are not of the same logical form, are not of the same logical form in the sense I was speaking of a moment ago, that is in the sense that from 'I believe p' you can derive 'I believe q' by replacing the constituents of one by the constituents of the other. That means that belief itself cannot be treated as being a proper sort of single term. Belief will really have to have different logical forms according to the nature of what is believed. So that the apparent sameness of believing in different cases is more or less illusory.

There are really two main things that one wants to notice in this matter that I am treating of just now. The *first* is the impossibility of treating the proposition believed as an independent entity, entering as a unit into the occurrence of the belief, and the *other* is the impossibility of putting the subordinate verb on a level with its terms as an object term in the belief. That is a point in which I think that the theory of judgment which I set forth once in print some years ago was a little unduly simple, because I did then treat the object verb as if one could put it as just an object like the terms, as if one could put 'loves' on a level with Desdemona and Cassio as a term for the relation 'believe'. That is why I have been laying such an emphasis in this lecture to-day corne fact that there are two verbs at least. I hope you will forgive the fact that so much of what I say to-day is tentative and consists of pointing out difficulties. The subject is not very easy and it has not been much dealt with or discussed. Practically nobody has until quite lately begun to consider the problem of the nature of belief with anything like a proper logical apparatus and therefore one has very little to help one in any discussion and so one has to be content on many points at present with pointing out difficulties rather than laying down quite clear solutions.

# 4. The question of nomenclature.

What sort of name shall we give to verbs like 'believe' and 'wish' and so forth? I should be inclined to call them 'propositional verbs'. This is merely a suggested name for convenience, because they are verbs which have the form of relating an object to a proposition. As I have been explaining, that is not what they really do, but it is convenient to call them propositional verbs. Of course you might call them 'attitudes', but I should not like that because it is a psychological term, and although all the instances in our experience are psychological, there is no reason to suppose that all the verbs I am talking of are psychological. There is never any reason to suppose that sort of thing. One should always remember Spinoza's infinite attributes of Deity. It is quite likely that there are in the world the analogues of his infinite attributes. We have no acquaintance with them, but there is no reason to suppose that the mental and the physical exhaust the whole universe, so one can never say that all the instances of any logical sort of thing are of such and such a nature which is not a logical nature: you do not know enough about the world for that. Therefore I should not suggest that all the verbs that have the form exemplified by believing and willing are psychological. I can only say all I know are.

I notice that in my syllabus I said I was going to deal with truth and falsehood to-day, but there is not much to say about them specifically as they are coming in all the time. The thing one first thinks of as true or false is a proposition, and a proposition is nothing. But a belief is true or false in the same way as a proposition is, so that you do have facts in the world that are true or false. I said a while back that there was no distinction of true and false among facts, but as regards that special class of facts that we call 'beliefs', there is, in that sense that a belief which occurs may be

#### LOGIC AND KNOWLEDGE

true or false, though it is equally a fact in either case. One might call wishes false in the same sense when one wishes something that does not happen. The truth or falsehood depends upon the proposition that enters in. I am inclined to think that perception, as opposed to belief, does go straight to the fact and not through the proposition. When you perceive the fact you do not, of course, have error coming in, because the moment it is a fact that is your object error is excluded. I think that verification in the last resort would always reduce itself to the perception of facts. Therefore the logical form of perception will be different from the logical form of believing, just because of that circumstance that it is a fact that comes in. That raises also a number of logical difficulties which I do not propose to go into, but I think you can see for yourself that perceiving would also involve two verbs just as believing does. I am inclined to think that volition differs from desire logically, in a way strictly analogous to that in which perception differs from belief. But it would take us too far from logic to discuss this view.

# V. GENERAL PROPOSITIONS AND EXISTENCE

I am going to speak to-day about general propositions and existence. The two subjects really belong together; they are the same topic, although it might not have seemed so at the first glance. The propositions and facts that I have been talking about hitherto have all been such as involved only perfectly definite particulars, or relations, or qualities, or things of that sort, never involved the sort of indefinite things one alludes to by such words as 'all', 'some', 'a', 'any', and it is propositions and facts of that sort that I am coming on to to-day.

Really all the propositions of the sort that I mean to talk of to-day collect themselves into two groups—the *first* that are about 'all', and the *second* that are about 'some'. These two sorts belong together; they are each other's negations. If you say, for instance, 'All men are mortal', that is the negative of 'Some men are not mortal'. In regard to general propositions, the distinction of affirmative and negative is arbitrary. Whether are going to regard the propositions about 'all' as the affirmative ones and the propositions about 'some' as the negative ones, or vice versa, is purely a matter of taste. For example, if I say 'I met no one as I came along', that, on the face of it, you would think is a negative proposition. Of course, that is really a proposition about 'all', i.e., 'All men are among those whom I did not meet'. If, on the other hand, I say 'I met a man as I came along', that would strike you as affirmative, whereas it is the negative of 'All men are among those I did not meet as I came along'. If you consider such propositions as 'All men are mortal' and 'Some men are not mortal', you might say it was more natural to take the general propositions as the affirmative and the existence-propositions as the negative, but, simply because it is quite arbitrary which one is to choose, it is better to forget these words and to speak only of general propositions and propositions asserting existence. All general propositions deny the existence of something or other. If you say 'All men are mortal', that denies the existence of an immortal man, and so on.

I want to say emphatically that general propositions are to be interpreted as not involving existence. When I say, for instance, 'All Greeks are men', I do not want you to suppose that that implies that there are Greeks. It is to be considered emphatically as not implying that. That would have to be added as a separate proposition. If you want to interpret it in that sense, you will have to add the further statement 'and there are Greeks'. That is for purposes of practical convenience. If you include the fact that there are Greeks, you are rolling two propositions into one, and it causes unnecessary confusion in your logic, because the sorts of propositions that you want are those that do assert the existence of something and general propositions which do not assert existence. If it happened that there were no Greeks, both the proposition that 'All Greeks are men' and the proposition that 'No Greeks are men' would be true. The proposition 'No Greeks are men' is, of course, the proposition 'All Greeks are not-men'. Both propositions will be true simultaneously if it happens that there are no Greeks. All statements about all the members of a class that has no members are true, because the contradictory of any general statement does assert existence and is therefore false in this case. This notion, of course, of general propositions not involving existence is one which is not in the traditional doctrine of the syllogism. In the traditional doctrine of the syllogism, it was assumed that when you have such a statement as 'All Greeks are men', that implies

228