Lecture IX.

In the lectures of this course thus far we have been applying the theory of the social basis of the individual mental processes to ~~the problems of both intellectual and moral type~~ [illegible] intellect and to the will. Yet everywhere we have been dealing with cases ~~that are pretty obviously more or less influenced by social motives.~~ where, in advance of our study, we could feel pretty sure that at least some sort of social influence is at work. As we approach, in the present discussion, the effort to apply our social theory to the conception of nature, it may seem to some that here at last we reach the limit. In what sense can man's conceptions of nature be said to be due to the social influences that are brought to bear upon him by his fellow men? Has not man learned all nature from nature herself. Yet a little closer examination of the problem will of course show that whatever may be the truth with regard to nature herself, man's conception of nature is at all events a human product. And furthermore, this human product is one which is not due to the isolated development of any individual man. For man's view of nature changes with the grade of his social civilization. Nature is one thing for the savage, and another thing for the earlier stages of civilization, and still another thing for the era of modern science and modern industrial art. The theologians view nature in one light, and the modern scientific tradition takes another. All these are, after all, common-places. It ought to be plain from the very outset that not merely the popular but also the most enlightened views that man can form concerning the constitution of nature

are actually such as to involve mental processes that could not occur were man isolated. Students of nature do indeed frequently conduct their researches alone. The judgment of the individual investigator is frequently influenced in the main upon a specific question by what he himself has observed. The power to make independent observations, and to draw independent conclusions concerning natural facts is actually cultivated in all forms of scientific investigation. But on the other hand there can be no doubt that even the most exact science is under the influence of the ruling ideas of its time - that if it in turn influences these ideas, it is all the more involved in social responsibilities. We shall easily observe also that the scientific spirit itself has had its history; that it has resulted from a particular relation between the interests of industrial art and the interests of theology; and that in these, as in many other ways, the scientific spirit has been influenced by social conditions. Yet it is not such a vague impression of the general relation between what we call the study of nature and the social consciousness of mankind that I wish to bring to your attention today. It is rather the precise way in which our views about nature must be influenced in the long run by the essentially social structure of our consciousness and by the essentially social conditions under which this consciousness grows up. It is this which I wish to bring out by means of the discussion that now lies before us.

is the ~~notion~~ that man forms of the natural world which is our topic at present. It requires very little philosophizing to be able to see that whatever the natural order may be in itself, man's idea of nature is a product of very specific human conditions. If man's sense organs were different, his knowledge of nature would ipso facto be different. If man's memory, if his imagination, if his power to construct conceptions were different, he would necessarily, in case he got any view of nature at all, have a somewhat different notion of her laws and of her constitution. As a fact of the history of the race, man's ideas about nature have gone through very widely various stages. Our idea of nature depends then upon conditions which are so far determined by the constitution or by the evolution of the human mind. But the human mind, as we have seen, has been influenced by social conditions throughout the whole course of its intellectual as well as its moral development. It remains, then, to see in what way this social constitution of the intellect has influenced our ideas of nature. Certainly we may expect to find that this influence has been genuine, perhaps large. But what has it been?

Now, to begin a response to this question, I may point that man's ~~views of~~ nature, if taken historically, appear as of distinct types. Nature is either a collection of ~~ideal comrades~~ of a more or less intelligent grade, or else is a realm of law. ~~That is, nature is conceived either in one or the other of these two ways.~~ For the first, I say nature is sometimes conceived by man as a collection of ideal comrades, a more or less extensive

and ~~rational conception~~ intelligible social order of animated beings. Everybody knows that primitive man thus regarded nature as ~~in large part~~ a large part of a realm of spirits. And every one is aware that this conception has influenced a great deal of the primitive theology ~~that~~ even of a Greek very much higher than the savage level. We also know that this view of nature has tended on the whole, to go in the background, or to be lost altogether, ~~entirely replaced~~, as science has grown. On the contrary, the scientific view maintains that while nature is independent of man's mind, nature (other, the more characteristically except in plants and animals) is not alive, and cannot be regarded as an ideal comrade, or enemy, but is ~~altogether~~ (bottom part) inanimate, and subject to rigid laws. (In the old or primitive way) As a realm of ideal ~~comrades~~ live beings, nature is viewed, in so far as one explains the thunder-storms, by supposing that spirits or gods are expressing their anger or are displaying their power by means of the lightning's flash or the thunder's roar. Or again ~~or there~~, this view is exemplified when one holds that there are spirits ~~that~~ rule over or ~~that~~ dwell in the rivers, ~~that~~ animate the trees, or that there are gods ~~that~~ who dwell in the heavens, ~~that~~ or who perhaps are identical with the sun or with the shining sky. In all such cases the beings of whom one speaks are thus far powers of nature. They may perhaps be hardly confused ~~altogether~~ with the visible objects; they may be very sharply separated from them (or latter) and merely made responsible, as causes, for what (their visible representatives reveal) ~~happens~~. These beings, who in such case animate, or produce, or express themselves in nature, may be far above the human level, or they may be by their baseness or capriciousness decidedly below the rational human level. Many of the ghosts in which savages believed were certainly decidedly ill-worthy of the name of rational beings.

Many of the higher nature-gods of (even pretty early) theology rise far above the level of any known human wisdom or power.

But in all such cases man comes to believe that beyond himself and beyond the minds of his fellow men, there is a world which may still be called in general the world of the alter, only now this alter is no longer human. It is a collection of spirits or a realm of gods, or, finally, it is the realm where the power of perhaps a single divine being gets expressed. Men who view nature in this way may merely fear nature. They may regard the realm of the ideal live beings as one of intolerable capriciousness. And they may invent magic formulas for dealing with these wills, extra-human But as men use such magic formulas, there comes dimly into sight another and a very different notion, the natural order. For as men apply these magic formulas, they are very likely to add the notion that in addition to the spirits, there is in the world something which may be called "fate," an impersonal kind of power to which the spirits and the men, the gods and the mortals, are alike subject. Even the conception of Fate is from the start a very curious one. A magic formula, a thing in compels the will of the spirits. ~~Fate as a conception about what is personal in nature appears very early in savage superstitions.~~ One may say perhaps that the idea of fate is as early as the idea of the spirits who along with the men are more or less subject to fate. Of course the realm of primitive fate is far from being identical with the realm of natural law, as we now conceive it. (Yet in the idea of fate the idea of natural law already begins.) For a savage, even for it would appear that there are two ways of explaining a fact. Both ways are used. Both may be in mind almost at the same time... And the two ways in the savage mind do not wholly conflict. A natural fact may be explained by telling whose will it expresses. So far

to whom it is addressed. Why? Because the spirits are not free, but are bound by set laws. This law is fate.

One takes the first and more primitive of the two foregoing views as natural

And it is easy to exemplify this fashion of explaining natural things. Thus, in many savage nations the natural fact of death or the beginning of the world or the origin of old age, or the creation of woman, or any other fact of experience that is sufficiently interesting to need explanation, may be explained by telling who did it, whose will caused it, whose purpose is expressed in it. In a Polynesian legend, for instance, death is explained by saying that the moon was jealous of mankind when men appeared on earth, because the moon is obliged once a month to come very near to destruction, while the men so far were not subject to this lot. Hence the moon through her magic power expressed her jealousy by forcing the men to die, and by making their fate worse than the moon's in so far as they not merely went near to destruction, but were henceforth entirely destroyed. Thus by the jealousy of the moon, i.e. by a fact supposed to express somebody's will, the appearance of death is explained. But this very story itself involves another element. For if one asks why the moon is subject to the monthly decay and to that nearness of destruction which in the Polynesian mind sufficiently explained the moon's feeling of jealousy towards mankind, the answer is that this misfortune, for instance, of the moon was a matter of fate. Very frequently in savage stories one explains phenomenon not merely by telling whose will it expresses, but merely by repeating the fact itself in some other form, and thus giving it the name of a fatal law. There are a great many primitive stories which explain disease, or evil, or death, simply by telling about the person to whom this first happened,

and by thus assuming that it is natural that this thing once having happened, must continue as a mere fatal necessity, to happen again and again. Thus another Polynesian legend explains old age and consequent death merely by saying that there was once a certain early hero of extraordinary rank and dignity, who after many years had elapsed, happened to discover that grays hairs were growing on his head. In one form of the story, he suspected that grey hairs might be coming, and asked his wife if she saw them, and as soon as she answered him, or as soon as he saw them himself, he said: Now it must happen; I must die; and henceforth all men must die as I do. Thenceforth as a fact, according to the story, all men died. Or, in the familiar Grimm tale of the mill that ground salt, the saltness of the sea is expressed, once more, as a sort of combination of will and of fatality. Why is the sea salt? First because somebody wanted to make salt and was skilful enough to find a certain magic machine that would grind salt. But then why did the machine grind so much salt? Answer:- a fatal mishap led, after the starting of the machine, to a situation in which nobody knew how to stop it, and it has been grinding ever since. I mention these comparatively trivial instances to indicate that very probably the conception of nature as a realm of ideal comrades, subject to the caprices of their will, but not subject to any fixed laws, is a conception that probably never existed apart from some very abstract notion of a fate or necessity

that pervades it. The gods in Homer are subject to an impersonal fate beyond them, and I suppose that this idea may be said to pervade nearly all religious beliefs.

But however the matter may be worked out in detail, nature is conceived as a realm of ideal comrades or as a realm where ideal comrades express their purposes in case of all such savage superstitions or stories as have been suggested. I speak of ideal comrades, using that word "comrade" in the general sense with which we are now familiar. An ideal comrade in the mind of a happy child or in the brighter superstitions of savagery is likely to be a comparatively friendly, social relative, but darker savage superstitions have involved the belief in the live beings who differ from literal men by virtue of their capricious or hostile bearing. But it is obvious that the ideas of such beings have been derived from men's acquaintance with men. These beings in whom superstition believes are still in so far as they are ideal comrades, conceived after the fashion of men. As to the origin of the tendency to explain things by

It is very customary to maintain that man has derived the conception of a spirit working in nature from his personal observation of his own self conscious will, or of his own experience or of his own power. But I must insist that after what we have said concerning the developments of ego and alter, it is quite impossible to suppose that all this savage belief in spirits which is so often technically called animism, can ever have developed upon the basis of an isolated man's

private experience. He becomes social in social relations. He learns from the alter what and who the ego is. And as a number of modern writers have pointed out, the animism of the savage is ~~merely~~ simply an extension of the limits of human society, an extension governed by motives essentially similar to those which govern the child's belief in the ideal comrades. Of course this world of extended society is far more complex and capricious and from our point of view irrational in the case of the savage than in the case of the ordinary playful child. But that is a matter of the special conditions. Plainly, then, so far at least, we can see that the savage conception of (the spirits whose will explains to him) nature has through and through been influenced by social motives.

¶ ~~In the history of the early conceptions of~~ Now as to the further development of the notion of will in nature, it is easy to follow the way in which the transformations of ~~religious~~ belief about spirits followed the transformations of the social order. Isolated savage tribes with a rude and primitive society believe in spirits of a base and essentially capricious sort. As society organizes, the realm of the ideal ~~comrades~~ fellow beings who are used to explain the phenomena of nature organizes. One comes to believe in a hierarchy of gods. Stress is laid upon the more significant and universal of these gods. And while it is sometimes true that tribes who have a comparatively rude political organization, as was the case with the Polynesian, come to believe ~~in~~ in gods some of whom are of a decidedly high level, it is also true that these divine beings are associated in the minds of the believers with ~~at least certain~~ more ~~human social ideals which sug-~~

~~geet that these people have conscious, socially significant~~ laws and ideals which go far beyond the limits of their actual tribal organization, so that their gods stand rather for their ideal than for their actual society, but are none the less intimately related to the social conceptions which these people possess. In many higher cases, one finds that a belief in a capricious realm of spirits gives place to a pretty organized polytheism precisely at the point where civilization gets well ordered. And, as we saw at the last time, at the very moment when social conceptions become universal enough for an ideal society, an ideal humanity to come into sight, just at that point one's conception of the realm of the unseen world gets unified accordingly. The real social world suggests the ideal. Then, as we saw, the ideal world goes far beyond the real; and conscience results. But ~~of course the organiza-~~ this organization of the divine realm involves also a belief in a somewhat more organized constitution of nature. If nature expresses the will of God, it may or may not be what we should call a world of divine, natural laws, but at any rate it has some sort of unity that makes its phenomena otherwise than capricious. They are connected together, and both Oriental pantheism and the monotheism which is more familiar in our own type of faith agree in regarding nature as a more or less connected whole, just because it is an expression of a unified divine world.

So far, then, as nature is a realm of ideal ~~comrades~~ fellow beings, the social conditions which get expressed in one's belief in the ideal comrades, as well as the social and ethical ideals that determine

and in turn are determined by the supposed constitution of this world of ideal comrades - all these are factors in one's view of nature. The natural realm is so far the refelction of this ideal social realm. And thus one reaches the height of what might be called the religious theory of nature ~~But on the other hand, the social relations of that conception of fact which as we saw is already present is the savage mind, and the way in which the modern conception of natural law has grown out of that primitive idea of the fact which does not express anybody's will but which simply is what it is~~ But now all this process ~~needs a further study~~ has another side. Even for the savage nature is not merely a realm of ~~ideal comrades~~ spirits - not merely a world whose phenomena express somebody's will. It is also a realm where things happen more or less because they must happen, because that is fate, or is the way of the world. The modern conception of natural law appears more or less to be a development out of this primitive conception. But if we ask how man has come by the modern scientific conception that nature is a realm which is not at all the capricious expression of will, but is rather a place where rigid law reigns, the customary answer is that a careful study of the facts of nature has gradually brought man to recognize that as a fact nature has this lawful constitution. Now we have next to ask whether so far now as a careful study and a collection of the facts with regard to nature has gradually brought man to transform the fate of the savage into definite laws, we have of course a view of nature which does indeed in one sense depend upon social conditions. For unless man's social traditions had been stable

social factors have had anything to do with this process whereby man has come to believe in natural law! If to this question the customary answer is again simple. One says: Ja

enough to preserve the knowledge of facts formerly observed, man would of course acquire the idea of the uniformity of nature. Unless political organization were definite enough to give individual men the opportunity to investigate natural facts, the traditions of science could never have arisen. In this sense, and in this sense only many investigators recognize that our conception of nature ~~in so far as we conceive nature~~ as a realm of law, depends upon social conditions. But I myself am not satisfied that this view is an adequate expression of the way in which man's notion of nature has been dependent upon his social relations to his fellows. I should say that distinctly social factors have affected the growth of the scientific conception of nature precisely as much as similar factors affect the growth of what one may call the theological conception of nature. As the realm of the ideal beings, the spirit world, of the enlarged primitive society, gradually passed over into the realm of a single divine principle, ~~so that man on that side of his intellectual life has come in so far as he is a religious man to believe that nature expresses a will~~ we have seen that social organization had a great deal to do with this unification of conceptions. But on the other hand, I should distinctly maintain that the development of the modern conception of natural law out of the primitive savage idea of a fate governing nature has equally been determined by considerations that could only occur to man in and by virtue of his social experiences. Everybody admits that social conditions enabled man to discover natural laws. But I admit that the very idea of a law of nature is first suggested to man by social interests.

And now I shall try to show how the growth of the conception of natural law out of the primitive conception of fate has been due thus to social factors.

When we say that nature exists apart from man, and proceed to say that natural things are subject to universal laws, when for the time being we abstract from any belief that we may have with regard to the relation between nature and God, and view natural things not as an expression of the divine will, but precisely as things existent by themselves, what do we mean by this existence of nature? These walls here about us are natural facts. They are subject to natural laws. Were a sufficiently violent earthquake to shake them, they would fall, and that with mechanical necessity. When they were built, they were built by means of conformity to natural laws, that concern the strength of materials the tendency of heavy bodies to fall, the tendency of solids brought in certain relations to cohere together, and so forth. We view these facts, these things, these processes, these laws, as existent by and for themselves. Even if we say that they express the divine will, we can of course abstract from this conception of the divine will, and we can view these natural processes as something existent for themselves. And now what do we actually mean by this existence for themselves? I answer, what we mean by this requires for its explanation the observation of two very important matters. In the first place, we believe in any natural fact, as for instance, in the exist-

ence of these walls, because each one of us individually perceives something as experiences, his own ~~as observations~~, the characters of the wall; Each one of us tests on occasion, experimentally the coherence of the walls materials or the strength with which it resists our pressure. Every one of us is constantly making experiments upon natural facts, even if he is not at all a scientific student of nature. Every one knows more or less about the weight of things and the relation of weight to many other properties of matter. Each one of us observes, for himself alone, that wood may be burned in the fire; that water boils when heated. And so in general by the laws of nature and by the facts of nature and by the things of nature we mean in the first place a coherent collection of experiences that any one of us in a measure can verify for himself. In so far, when I speak, alone for myself, of natural facts and processes, and when I speak of them in so far as I myself personally can verify their existence, I refer to the fact that a certain group of perceptions which I have, ~~actually~~, cohere together in certain more or less exactly definable ways. There are, to use an expression which had played considerable part in modern discussion, certain relatively permanent possibilities of experience which I myself, quite apart from my fellow man can examine, can remember, can treat with respect as facts independent of my will, and in these various ways can regard as possessed of something like reality. So far, then, nature exists for me, and that quite apart from any

effort on my part to interpret nature socially or to conceive nature as an ideal comrade or to call nature the expression of God's will. The nature which I can thus observe for myself extends, in my field of vision, indefinitely into the heavens. And there are objects which I myself, quite apart from instrumental assistance, or from any scientific instruction, may come to regard as extremely distant objects, namely, the stars. To me alone, as individual observer, a certain routine of nature is visible in the heavens above. The sun rises and sets daily. If I live by the sea-shore I observe, and once more for myself alone, similar regularities in the ebb and flow of the tides. As I move about, visible objects alter their apparent shapes according to extremely definite natural laws of which I also take more of less conscious account. Yonder object appears far away, and I observe that if I try to approach it, it takes me long to reach it. Such a remote object is one that I can come to touch only in case I spend some time in getting to it. In these and countless other ways I have occasion as an intelligent being to observe that I personally am in a world of experiences, that do after a fashion and in some regions more than in others conform to rigid laws of succession. So far, then, nature is existent for me, an individual observer. And nature in this sense is so far a realm of spirits nor an object as yet of any developed natural science. Nature (as thus viewed by me alone) is a complex of objects of experience that I as a matter of common sense can learn to view as familiar and as subject to routine. It is more or less under the

control of my will, while all the time more or less independent of my will. This notion of nature as the realm of possibilities, of experience, is a notion very different from the savage idea that I am dealing with ideal comrades, yet it is a notion that seems ~~equally natural~~ so far as I am concerned with ~~the other notion~~. We may ask, however, how I come by this notion. In answer we must recognize that, in one sense, my social training gets expression even in this relatively independent and lonesome view of m y relations to nature. For if I definitely think of nature as a realm of coherent possibilities, of experience, of facts which I myself can test, examine, inspect, and confirm in definite ways, I must in order to get this view be possessed of the power to think pretty abstractly. In order to become conscious of even my private and lonesome relations to nature, I must make use of those powers of abstract thinking which, as we have seen, I can only develop in social relations. As a fact, it is one thing to be subject to a regular routine, and even to be able to find one's way about all alone in the world, and it is quite another thing to be conscious of what one is doing when one thus finds one's way about. My docility would lead me even if I were not a social animal to become acquainted with the routine of natural facts. The succession of day and night would influence my functions. The routine of my bodily processes would involve hunger and thirst and the search for food and all the other processes that in many a docile animal may be observed resulting from what appears to be the private exper-

ience of that animal itself. Moreover, an ingenuity can exist which is decidedly an unsocial ingenuity. In dealing with nature, I can experience such processes as are seen in children ~~climbing, and other forms of skill in balancing and the like will exemplify.~~ learning to use my eyes to grasp, to climb, and to develope like skill. Skilful functions of this sort depend upon a natural ~~acquired~~ routine of experience, and are acquired in a given animal perhaps only on the basis of considerable trial and failure. Yet to know one's way about in the world is not the same as to have the abstract or conscious conception of ~~any~~ natural order. And it is not clear that an animal which daily follows a routine determined by the direction of the sunlight, by the difference between morning and noon and evening, would be conscious of nature as a uniform system of phenomena. Nor does it follow that an animal ~~that~~ which ingeniously acquires the power to hunt for its prey or to climb, ~~or to acquire any difficult process,~~ is so far viewing the natural world in which it lives as a world subject to law. To be is one thing to be subject to law, and quite another thing to be conscious that we are subject to law. So that there may be a great deal of routine in consciousness without there being much consciousness of routine. It is perfectly true, again, that all skilful activities of an animal involve a great exactness of adjustment. The animal adjusts its movements in a very precise way to the exact nature of natural objects. It does not at all follow that the animal itself intelligently observes this exactness of its own

adjustment. But to be aware of any laws of nature as laws, one must not only adjust one's self very exactly to the nature of objects, but must be conscious of the plan of action which is involved. For all clear conceptions are conscious plans of action. So far, then, as I live in a routine way, surrounded by definite possibilities of experience, and able to adjust myself to my environment, I indeed have in my experience the conditions for acquiring the idea of nature as a realm of law. On the other hand, it is not at all clear that I shall add to this general condition, the specific condition which will enable me to develop the particular consciousness of this or that law.

In the sense then in which I can deal with nature entirely alone, it seems somewhat difficult to discover how I should ever have come to get a definite conception of natural law since this conception of natural law depends upon the power to think abstractly, and since the power to think (with conscious abstractness) so far as we can follow its development grows up in social relations only.

But now (go further.) suppose that, by means of my social relations, I have acquired the power to think. Suppose that I am capable of forming consciously abstract conceptions. Now let me once more turn back to the world of isolated experience. Let me ignore the experiences (that I have got in company) with my fellows, and let me turn to my relations with inanimate nature. Am I even now certain to observe that nature is a realm of definite routine, that the possibilities of experience in my own case are subject to definite law; and that this law is something

quite external to my will and to my private life? In answer to this question one must answer that the nature in which you and I believe when we speak of the walls and of other properties as physical objects, and of the real laws to which they are subject, - all this conception involves a second matter, and a wholly new one for which as yet we have not accounted. The walls, so we have thus far said, are for any one of us permanent possibilities of experience. That is, if we touch them we shall find them possessed of the power to resist our pressure. Or again, we shall find that fire has a power to burn, and we shall observe on occasion that it burns a stick of wood. But our actual conception of nature involves more than a collection of such private and personal observations, however complex, however definite. Such a collection might be We all conceive that the natural world, in addition to being represented by a coherent set of experiences in the mind of any one man, exists apart from you and from me, exists independently of any man, exists as what we call external reality. Now, I am not here inquiring in any mataphysical way as to the truth of that conception, that nature is something external to mind I am asking only how such a conception could ever have grown up. How is that we have come to believe that the natural processes have an existence apart from all of us? I answer, here is a conception that has at last its pretty obviously social aspect. (in a way far too seldom carefully studied) For I believe in nature as a realm of reality that exists apart from myself precisely at that moment when I conceive of nature as a realm of reality that exists also apart from you. That nature is independent of myself is something that my own private experience

(How can my private experience prove to me that nature exist when I myself do not experience it)

could never sufficiently verify. We may well ask how the motive should arise that leads me to make so sharp a difference between my experience and nature. The mere rigidity of nature's routine does not in and for itself prove that the experiences which occur to me privately when I deal with nature stand for facts which continue to exist wholly apart from me. My own inner world has its routine. Remembered facts are subject to law precisely as well as presented facts. When I imagine one thing, I am forced to imagine another, frequently with the same degree of rigidity of routine that governs my present experience of nature. Yet the realm of images is said to exist only in my mind. It exists as a collection of possibilities of inner experience. I never naturally view it as a fact existent apart from me. Precisely so my world of moral experience has its very fixed routine. When I think of a certain fact in my own past, as for instance one of my acts, I may feel pride or regret, as the case may be. This feeling of pride or regret follows memory of the fact as inevitably as one natural fact follows another. Yet such a process of regular sequence belongs to what I always conceive as my world of inner experience. In fact just so far as I merely experience something and am led by the experience to expect something else, I am so far explicitly dealing with states of my own consciousness. So far as I become self-conscious, I may indeed clearly distinguish these states from the states of somebody else, namely, the states of the alter. For Motives that we considered in an earlier lecture may well lead

me to regard the alter as an independent being who goes on thinking when I am not present, or who plans what I can never quite make out, and whose realm of ideas is in some respects inacessible to me. But no matter how constantly I deal with nature, so far as I alone am concerned, I am dealing with my own experience. The question arises: Why is it that I come to refer these experiences ~~that~~ which I have, of sky, of sun, of stars, of ocean, to objects existing quite apart from me, and to present when I am not present? I have ~~discussed~~ answered that ~~it is pretty obvious that~~ this conception of nature is independent of me, and is pretty intimately connected with my conception that nature is ~~also~~ independent of you. And now, as a fact, I think we find many evidences that the same social motives which have led to the differentiation of alter and ego ~~have led to the differentiation of the world of conscious beings from the world of of nature processes with which they all stand in common relations~~ have led us to believe in a nature world which is independent of both yours and mine, and at last of any mind whatever.

Let us observe a little more closely how this is possible. ~~You and I deal together. In the course of our social relations each of us learns to distinguish alter and ego. Re-~~ Suppose the world of one's social experience reduced to such a simple form as the following: suppose that two persons are left alone together on a desert island, and grow up intelligently together. If our foregoing theory is true, these beings as they grow will imitate one another and be conscious of this imitation. They will contrast their various acts. The social contrast effects

will lead to the differentiation in the minds of each person of his idea of himself from his idea of the other. These two beings if we suppose them to have intelligence and experience enough, will in course of time become both of them to believe in a world where each lives a life somewhat independent of the life of his fellow, ~~and where~~ each of them will believe that his fellow's life is in such wise independent of his own that his fellow may be awake when he sleeps, may see something when he does not see it, may have an idea which he himself has not, and so on. In the world of two such beings there would be as they grow in intelligence a differentiation. Each would say: I am; and each would say: You are, and you are independent of me. You experience what I cannot wholly experience. You think what I cannot myself think. You have ideas that are not present to me. And now such beings as these deal with one another - are also actually experiencing the routine of nature. In common they observe the sun. We may imagine them pointing at it, or if they were intelligent enough, speaking of it. Furthermore, they deal in common with many natural objects, such as tools, weapons, food. These objects they hunt for together. They pass them from one to another. Either one can observe such a natural object when the other does not - can tell the other about it, and so on. Now, how will these people come to view those natural objects? The natural objects will be for each of them more or less coherent possibilities of experience of the type of which we spoke before.