

so to speak, be *generated* from things by abstracting from their individual properties. If this theory were true, it would then follow conversely that by adding certain characteristics to a concept we would be able to transform it back into a real thing. This too is nonsense, of course. No matter how many specific features we add, a concept can at most become the concept of an individual thing; it can never become the thing itself. Notwithstanding, the question of the so-called *principium individuationis* — the principle through which an individual object supposedly grew out of a general concept — did play a large role in medieval scholasticism. And the strange doctrine arose of the "*haecceitas*", that characteristic which, when joined to a general concept, converts it into an individual reality.

It is equally impossible for an *image* or *idea* to grow out of a concept by the addition of characteristics to the concept. For an idea also is something real; it is a form of mental reality. Just as real things or ideas cannot be built up out of mere concepts, so too concepts cannot be *generated* from things and ideas by the omission of certain properties.

In general, we cannot "think away" a property from a thing, and leave the other properties unaltered. For example, I cannot form the concept of a mathematical sphere by first imagining a real sphere and then abstracting from all of its properties, such as color and the like. I can, of course, visualize a sphere of any given color, but not a sphere of no color at all. We do not arrive at concepts by *omitting* certain features of things or ideas. As the example of the sphere shows, we cannot simply leave out features without providing a substitute. Quite the contrary, the way we arrive at concepts is by distinguishing the various features from one another and giving each a designation. But as Hume already saw⁶, this differentiation is made possible by the fact that the individual characters can vary *independently* of one another. Thus in the case of the sphere, I am able to separate shape and color as particular features because on the one hand I can imagine bodies with any arbitrary shape but of the same color and, on the other, bodies of any arbitrary color but with the same shape.

This brief account will suffice, I hope, to furnish some initial clarity concerning the nature of concepts and to warn against any

⁶ D. HUME, *Treatise on Human Nature*, Book I, Part I, near the end of section VII.

and all reification of them. Concepts are simply imaginary things (*Gedankendinge*), intended to make possible an exact designation of objects for the purpose of cognition. Concepts may be likened to the lines of latitude and longitude, which span the earth and permit us to designate unambiguously any position on its surface.

§ 6. The Limits of Definition

Have we, by taking the steps described above, attained the desired goal of absolute certainty and precision in knowing? Unquestionably, we have made considerable progress. By using defined concepts, scientific knowledge raises itself far above the level of knowing in everyday life. Whenever we have at our disposal suitably defined concepts, knowledge becomes possible in a form practically free from doubt.

Consider an example. If someone hands me a piece of metal, I won't know whether it is pure silver or not, so long as I am restricted to the perceptions obtained merely from seeing or touching the metal. My memory images of silver are not sharp enough for me to distinguish them clearly from images of similar metals, such as tin or certain alloys. But the situation is entirely different if I make use of the scientific *concept* of silver. Then silver is defined as a substance with the specific gravity of 10.5, an atomic weight of 108, a certain electrical conductivity, and so on. I need only see if the substance possesses these properties in order to determine, to within any desired degree of accuracy, whether what has been given me is silver or some other metal. I satisfy myself of the presence or absence of the required properties — and there is no other way of doing so — by carrying out such experiments as weighing, chemical analyses, and the like, the outcome of which I ascertain by observation.

In the final analysis, however, sensory observation, such as the reading of a scale, always involves the re-cognition of a perceptual image, and the latter, as we have made clear, is ever subject to an essential uncertainty. The position of a pointer on an instrument, for example, can never be determined with absolute precision. Every reading contains an error of some size.

Hence we face the very same difficulty that we encountered at the beginning. Once again what is required is the re-cognition of

intuitive structures, the comparison of perceptual images with memory images. The only difference is that the images are not of the object to be known but of its properties. The characteristic features into which a definition resolves the concept of a real object must, in the end, be intuitive in nature. The presence of these features in a given object can be ascertained only by intuition; for whatever is given, is given us ultimately through intuition. The sole exceptions are non-intuitive experiences of consciousness, or "acts". But these, as we have emphasized, are no whit less vague and uncertain than intuitions.

So the difficulty that was to have been overcome by the introduction of concepts has in reality not been disposed of; it has only been pushed back. Yet in the process something has been obtained that is of great benefit to knowledge. The gain lies in the fact that now it is possible, by appropriate definitions, to shift the difficulty to the most favorable locations, where error can be excluded with a degree of certainty that suffices for the purposes of the individual sciences. For instance, if the concept of fish includes the features that it lays eggs and breathes through gills, then we can never make the mistake of taking a whale for a fish. The whale brings living young into the world and possesses lungs; these are characters with regard to whose presence exact observation and investigation cannot possibly deceive us. Likewise, the features characteristic of the concept "silver" — the example used above — are so chosen that their recognition can be guaranteed with sufficient accuracy for all practical as well as scientific purposes, even though recognition itself comes about only with the aid of sensory images. And the same holds for all other cases.

Yet no matter how fully this procedure may satisfy the demands of practical life and the sciences, it does not meet the requirements of the theory of knowledge. From the viewpoint of the latter, the difficulty continues to exist in principle however far back it may be pushed. The question for epistemology is whether this difficulty admits of being eliminated altogether. Only if this is so does it appear possible for there to be absolutely certain knowledge. It is therefore on this question that the theory of knowledge centers its attention.

An answer, it seems, is readily forthcoming with a moment's reflection. To define a concept is to specify its characteristics. But these latter, if they are to be precisely determined, must in turn be

defined; that is, they must be resolved into further characteristics, and so forth. Now if it were both possible and necessary to continue this series of subdefinitions without end, the resulting infinite regress would of course render all defining illusory. The fact is, however, that very soon we come upon features that simply do not admit of being further defined. The meaning of words that designate these ultimate characteristics can be demonstrated only through intuition, or immediate experience. We cannot learn what "blue" or "pleasure" is by definition, but only by intuiting something blue or experiencing pleasure. With this we appear, however, to have answered our question definitely and in the negative: an eventual return to what is immediately given, to intuition and experience, is unavoidable. And since the immediately given is in principle always marked by a certain haziness, it seems altogether impossible to obtain *absolutely* precise concepts. Must we not then concede that skepticism is right in denying the existence of indisputably certain knowledge?

At this point, an important observation needs to be inserted. When we say that intuitive structures are indistinct, we do not mean to deny that mental events are completely determined down to the last detail. As actual processes, they are determined in every respect; indeed, anything that is real is uniquely what it is and not something else. Yet the blurredness of which we speak is always present. For although these processes are at each moment fully determined, nevertheless they differ from moment to moment. They are fleeting and variable; our recollection in the very next moment cannot even reproduce the preceding moment with perfect accuracy. We cannot distinguish between two nearly identical colors, between two tones of almost the same pitch; nor can we tell for certain whether two nearly parallel lines form an angle. In short, although intuitions as actual structures cannot properly speaking be described as being undetermined in themselves, they nonetheless give rise to indeterminacy and uncertainty as soon as we try to make judgments about them. For in order to make judgments, we must hold these intuitions fixed in memory, something which their transitory nature resists. In what follows, we shall express this fact in abbreviated form by saying that all intuition or other experience lacks full sharpness and exactness.

Until quite recently logic generally had not been too disturbed over this situation. It had declared that the ultimate concepts at

which the process of defining must come to a halt not only are incapable of definition but do not *need* definition. The passion for defining everything was viewed as unnecessary hair-splitting, which hinders rather than promotes the advance of science. The content of the simplest concepts is exhibited in intuition (the pitch of the note "a", for example, by sounding a tuningfork). And this demonstration accomplished roughly what Aristotle had in mind as the task of a so-called real definition: to specify the "essence" of the object designated by a concept. This definition by ostension has also been called "concrete" or "psychological" definition, in contrast to logical definition proper, from which, of course, it differs *toto genere*.

Now the declaration that definitions may be dispensed with for the simplest concepts may mean two very different things.

In the first place, it may mean that intuition *is* able to endow certain concepts with a perfectly clear and definite content. In that event, our contention that all intuition is blurred (in the sense explained above) would have to be challenged and corrected.

In the second place, however, it may mean that we do not ever require absolutely accurate and theoretically perfect knowledge. The assumption then would be that only approximate or probable knowledge can be attained in any domain, so that to desire absolute certainty would not make sense.

The second alternative in its full form has been defended by only a very few philosophers. An example that might be cited is the doctrine of the Sophist Gorgias; the radical empiricism of John Stuart Mill — if carried out with thoroughgoing consistency — results in the same view. According to this philosophy, absolute certainty cannot be claimed for any knowledge, not even for so-called pure conceptual truths, such as the propositions of arithmetic. Our knowledge that, say, 3 times 4 equals 12 is obtained ultimately only through real mental processes, and these share the blurredness of anything that is given. The epistemological problem we encounter in reflecting on this viewpoint will have to be dealt with later. Then the attitude we must adopt toward the second of the two alternatives will be apparent at once. For the present we turn to the first alternative.

Here what is at issue is saving the certainty and rigor of knowledge in the face of the fact that cognition comes about through fleeting, blurred experiences. Now this can be done only if we assume

that experiences are *not* indistinct in every respect, but that there is something quite constant or clearly determined about them which becomes evident under certain circumstances. What is given at any moment is undoubtedly transitory in nature. Thus what is constant can only be the *law* that governs the given and provides it with its form.

Possibilities now open up that may enable us to make our way out of the Heraclitian flux of experiences onto solid ground. To be sure, it seems that a basic doubt must always remain: even if our intuitive ideas are ruled somehow by absolutely rigorous laws (and this is surely the case), the question still arises as to what we then *know* of these laws. Doesn't such knowledge also consist, in the final analysis, of fleeting experiences? And if this is true, wouldn't the entire question come up again and again, without end?

This is not yet the place to decide how far the basic doubt is justified, to determine whether we do indeed lose the assurance of absolute rigor as soon as we go back to the intuitive meaning of concepts. But regardless of what the decision may be, the theory of knowledge must be prepared against an unfavorable outcome. Hence it is of prime importance for epistemology that it investigate whether the content of all concepts is to be found ultimately only in intuition, or whether under some circumstances it may make sense to speak of the meaning of a concept without reducing it to intuitive ideas. The determinateness of such concepts could then be guaranteed independently of the degree of sharpness that characterizes our intuitions. We would no longer have to be dismayed by the fact that our experiences are in eternal flux; rigorously exact thought could still exist.

The sense in which something of this sort can be maintained will be indicated in the next section.

§ 7. Implicit Definitions

Although logic from the beginning was able to perceive the above-mentioned problem, the impetus for its definitive solution came from another quarter. It came from research in a particular science, to whose needs logic, in this instance as in most others, did not adapt itself until later. In the nature of the case, the only science that could forge ahead to a rigorous formulation of our problem

was one so constituted that absolute certainty had to be guaranteed for its every step. This science was mathematics. The remaining sciences, not only because of inadequate definitions but on other grounds as well, were unable to raise such lofty claims to rigor; hence they had no occasion to formulate their problems in so basic a manner. Nevertheless, the significance of the studies we are about to report is by no means confined to mathematics. On the contrary, they are in principle just as valid for scientific concepts generally as they are for those of mathematics. It is simply a matter of convenience that we take mathematical concepts as a paradigm on which to base our considerations.

When mathematicians discovered that the most elementary geometrical concepts, such as point or straight line, are not really definable (that is, they are not resolvable into still simpler concepts), they first took comfort in the notion that the meanings of these concepts are given so clearly in intuition that from them the validity of the geometrical axioms seemingly could be read off at once with perfect certainty. Modern mathematics, however, was not satisfied with this resort to intuition. Addressing itself to the basic questions, it set out in search not only of new geometrical theorems, but also of the grounds for the validity of *all* geometrical truths. Mathematical proof, the derivation of new propositions from those already known, gained in rigor as mathematicians strove to avoid any appeal to intuition. All conclusions were to be derived not from intuition but from explicitly formulated propositions using purely logical means alone. Phrases such as "It follows from a consideration of the figure . . ." or "It can be seen from the drawing . . ." were henceforth banned. In particular, there would no longer be any *tacit* recourse in geometrical proofs to properties whose presence could be established only by observing the figure. Instead, the existence of these properties would have to be deduced in a purely logical manner from the assumptions and axioms, or if that turned out to be impossible, specifically stated in new axioms.

At this juncture, it seemed intolerable that the ultimate principles — the axioms of geometry, which underlie all proofs and therefore are not themselves provable — should still owe their validity to intuition alone. This was the very same intuition which mathematicians sought to eliminate from proof procedures because, instructed especially by the development of views about the parallel postulate, they had come to suspect its reliability. If the mean-

ing of basic mathematical concepts, such as "point", "line" or "plane", could be exhibited only by means of intuition, then the axioms that hold for them also could be obtained only from intuition. Yet it is the legitimacy of precisely such proof that is at issue.

In order to escape from this uncertainty, mathematicians struck out on a path that is of the greatest significance for epistemology. Building on the preparatory work of others⁷, David Hilbert undertook to construct geometry on a foundation whose absolute certainty would not be placed in jeopardy at any point by an appeal to intuition⁸. Whether Hilbert was successful in every particular or whether his solution still needs to be completed and perfected does not concern us here. Our interest is solely in the principle, not the execution and elaboration.

The principle itself is amazingly simple. The task was to introduce the basic concepts, which are in the usual sense undefinable, in such a fashion that the validity of the axioms that treat of these concepts is strictly guaranteed. And Hilbert's solution was simply to stipulate that the basic or primitive concepts are to be *defined* just by the fact that they satisfy the axioms.

This is what is known as definition by axioms, or definition by postulates, or implicit definition.

It is important that we be quite clear as to what this kind of definition means and provides, and wherein it differs from the ordinary sort. In science generally the purpose of definitions is to create concepts as clearly determined signs, by means of which the work of knowledge can go forward with full confidence. Definitions build concepts out of all the characteristics that are needed for just this work. Now the *intellectual* labor of science — we shall soon have to examine its nature more closely — consists in *inferring*, that is, in deducing new judgments from old ones. Inference can proceed only from judgments or statements. Hence when we utilize a concept in the business of thought, we employ none of its properties save the property that certain judgments hold with respect to the concept — for example, that the axioms hold for the primitive concepts of geometry. It follows that for a rigorous science, which en-

7 Special mentions should be made of M. PASCH's Vorlesungen über neuere Geometrie, 1882.

8 D. HILBERT, Grundlagen der Geometrie, 4th edition, 1913. (English translation of first edition by E. J. TOWNSEND, 1902: The Foundations of Geometry.)

gages in series of inferences, a concept is indeed nothing more than that concerning which certain judgments can be expressed. Consequently, this is also how the concept is to be defined.

Modern mathematics, in electing to define the basic concepts of geometry in this manner, is not really creating something entirely new and exceptional. It is merely uncovering the role that these concepts actually play and have always played in mathematical deduction. That is to say, when we deduce mathematical truths from one another, the *intuitive* meaning of the basic concepts is of no consequence whatsoever. In so far as the validity and interconnection of mathematical propositions are concerned, it makes no difference whether, for example, we understand by the word 'plane' the familiar intuitive figure everyone thinks of when he hears the word, or any other figure. What matters is only that the word means something for which a particular set of statements (the axioms) holds. And exactly the same thing is true of the remaining concepts that occur in these axioms. They too are defined solely by the fact that they stand in certain relations to the other concepts.

Thus Hilbert's geometry begins with a system of propositions in which a number of terms occur (such as 'point', 'straight line', 'plane', 'between', 'outside of', and the like) that, to begin with, have no meaning or content. These terms acquire meaning only by virtue of the axiom system, and possess only the content that it bestows upon them. They stand for entities whose whole being is to be bearers of the relations laid down by the system. This presents no special problem, since concepts are not real things at all. Even if the being of a real, intuitive thing cannot be regarded as consisting merely in its standing in certain relations to another thing, even if we are obliged to think of the bearer of relations as being endowed with some nature of its own — this would by no means hold for concepts.

Still, experience shows that it is very difficult for a beginner to grasp the notion of concepts that are defined by a system of postulates and are devoid of any actual "content". We instinctively assume that a concept must have a sense that can be represented as such; and it is even more difficult to disregard the intuitive sense of the relations that exist between concepts. Take, for example, the sentence "The point C lies between points A and B on the straight line σ ". We are to associate with the words 'between' and 'lie upon' only the meaning that they signify certain specific relations among

certain objects A , B and C — but they need not designate precisely those relations that we usually associate with those words. Anyone who is not acquainted with this extremely important notion will do well to familiarize himself with it by considering a variety of examples.

Naturally it is mathematics that furnishes such examples in their purest form. This discipline makes frequent use of the fact that the mutual relations of geometrical concepts can be studied as such quite independently of their intuitive meanings. For instance, consider the family of the infinitely many spherical surfaces passing through a particular point in space, and imagine this point itself as having been removed from the space. Now take the theorems of ordinary Euclidean geometry; wherever the word 'plane' occurs let it signify one of the spherical surfaces, let the word 'point' signify a point and the words 'straight line' a great circle on a spherical surface, reinterpret the word 'parallel' in an analogous manner, and so forth. As can easily be seen, we then obtain a set of propositions all of which hold for the system of spheres. Hence in this instance exactly the same relations exist among the spheres, great circles and the like, as among the planes, straight lines, etc., in ordinary space (from which no point is thought of as having been removed). But our intuitive picture is, of course, entirely different in the two cases. Here we have an example of structures that differ in intuitive appearance from the straight lines and planes of ordinary geometry, yet stand in the same relations to one another and obey the same axioms. It is an easy matter for a mathematician to devise *arbitrarily* many other structures that accomplish the same thing.

Let us take another example. The theorems of the Riemannian geometry of the plane are completely identical with those of the Euclidean geometry of the sphere, provided we understand by a straight line of the former a great circle of the latter, and so forth. Similarly, the theorems of projective geometry preserve their truth under an interchange of the words 'point' and 'straight line'. And yet how different are the intuitive structures that we commonly designate by these words.

Such examples can be multiplied at will. Theoretical physics also offers an abundance of them. It is a familiar fact that essentially different phenomena may nevertheless obey the same formal laws. The same equation may represent quite different natural phenomena depending on the physical meanings we assign to the quantities that

occur in it. A very simple case, familiar to all, in which the mutual relations of concepts appear wholly disengaged from their intuitive content is found in the formulas commonly used to elucidate the Aristotelian modes of inference. When we infer "All S are P " from the two premisses "All M are P " and "All S are M ", the logical relationship holds quite independently of what the symbols ' S ', ' M ' and ' P ' may mean. All that matters is that the concepts stand to one another in the relations specified in the premisses. The symbol ' S ' can equally well designate men, or ship's propellers, or logarithms. It is thus easy to see that the introduction of any *ambiguous* symbol initiates a separation of content from the purely logical form, a separation which, pursued consistently, leads eventually to the determination of concepts by means of implicit definitions.

We conclude that a strictly deductive construction of a scientific theory, as found, say, in mathematics, has nothing to do with the intuitive picture we form of the primitive concepts. Such a construction takes into consideration only what is laid down in the implicit definitions, that is, the mutual relations of the primitive concepts as expressed in the axioms. From the standpoint of mathematics as a fixed structure of interconnected propositions, the intuitive ideas we associate with the words 'plane', 'point', and the like, count only as illustrative examples. And these, as we have seen, can be replaced by entirely different examples. It is true that, in the cases cited above, what we substituted for the usual meanings of the primitive concepts were in turn spatial figures familiar to us from ordinary geometry. But in principle nothing prevents us from using non-spatial objects, such as feelings or sounds, or for that matter wholly non-intuitive objects. In analytic geometry, for instance, the word 'point' strictly speaking means nothing more than *number-triple*. The fact that we can assign the intuitive meaning of spatial coordinates to these numbers does not affect their mutual relations or the calculations we make with them.

Thus geometry as a solid edifice of rigorously exact truths is not truly a science of space. The spatial figures serve simply as intuitive examples in which the relations set up *in abstracto* by the geometrical propositions are realized. As to the converse — whether geometry in so far as it does aim to be a science of space can be regarded as a firmly joined structure of absolutely rigorous truths — this is a question for the epistemology of mathematics. We shall not try to resolve it here, since our concern for the present is only

with the general problems of knowledge. However, it should be clear enough from what has been said that we cannot take for granted that the answer is in the affirmative, as one might otherwise suppose. For it was precisely the misgivings about the absolute rigor of propositions dealing with intuitive spatial forms that led to defining concepts not through intuition but through systems of postulates.

The meaning and effect of implicit definitions and how they differ from ordinary definitions ought now be more clear. In the case of ordinary definitions, the defining process terminates when the ultimate indefinable concepts are in some way exhibited in intuition (concrete definition, *cf.* § 6). This involves pointing to something real, something that has individual existence. Thus we explain the concept of *point* by indicating a grain of sand, the concept of *straight line* by a taut string, that of *fairness* by pointing to certain feelings that the person being instructed finds present in the reality of his own consciousness. In short, it is through concrete definitions that we set up the connection between concepts and reality. Concrete definitions exhibit in intuitive or experienced reality that which henceforth is to be designated by a concept. On the other hand, implicit definitions have no association or connection with reality at all; specifically and in principle they reject such association; they remain in the domain of concepts. A system of truths created with the aid of implicit definitions does not at any point rest on the ground of reality. On the contrary, it floats freely, so to speak, and like the solar system bears within itself the guarantee of its own stability. None of the concepts that occur in the theory designate anything real; rather, they designate one another in such fashion that the meaning of one concept consists in a particular constellation of a number of the remaining concepts.

Accordingly, the construction of a strict deductive science has only the significance of a game with symbols. In such an abstract science as number theory, for example, we erect the edifice for the sake of the pleasure obtained from the play of concepts. But in geometry, and even more in the empirical sciences, the motive for putting together the network of concepts is above all our interest in certain intuitive or real objects. Here the interest attaches not so much to the abstract interconnections as to the examples that run parallel to the conceptual relations. In general, we concern ourselves

with the abstract only in order to apply it to the intuitive. But — and it is to this point that our consideration returns again and again — the moment we carry over a conceptual relation to intuitive examples, we are no longer assured of complete rigor. When real objects are given us, how can we know with absolute certainty that they stand in just the relations to one another that are laid down in the postulates through which we are able to define the concepts?

Kant believed that immediate self-evidence assures us that in geometry and natural science we can make apodictically certain judgments about intuitive and real objects. For him the only problem was to explain how such judgments come about, not to prove that they exist. But we who have come to doubt this belief find ourselves in an altogether different situation. All that we are justified in saying is that the Kantian explanation might indeed be suited to rendering intelligible an *existing* apodictic knowledge of reality; but *that* it exists is not something that we may assert, at least not at this stage of our inquiry. Nor can we even see at this point how a proof of its existence might be obtained.

It is therefore all the more important that in *implicit definition* we have found an instrument that enables us to determine concepts completely and thus to attain strict precision in thinking. To achieve this end, however, we have had to effect a radical separation between concept and intuition, thought and reality. While we do relate the two spheres to one another, they seem not to be joined together at all. The bridges between them are down.

Even though the price may seem very high, it must for the time being be paid. We cannot begin our work with the preconceived notion of preserving, under any and all circumstances, the rigor and validity of our knowledge of reality. Our task is solely to gain a knowledge of our knowledge. And we have made considerable progress toward our goal through the insight that it is possible to divorce completely the two realms of concepts and reality. The more definitely and firmly we carry out this divorce, the more clearly we shall grasp the relations into which these two realms enter in the act of cognition.

As a supplementary remark and to avoid misunderstandings, we stress that not every arbitrary set of postulates may be conceived of as the implicit definition of a group of concepts. The defining axioms must fulfill certain conditions, for example, that they do not contain a *contradiction*. If the set of postulates is inconsistent,

then no concept will satisfy all of its members. Hence if the aim is to construct a deductive theory on the basis of certain axioms, the latter must be shown to be consistent. Often this is a very difficult task. But it is an internal affair of the theory in question, and we may think of it as solved so far as our theoretical discussion of implicit definitions is concerned.

We should also note that the expression 'implicit definition' is here used in a wider sense than is customary in present-day mathematics. There by an *explicit* definition we mean one that expresses a concept by means of a combination of other concepts in such a way that the combination may be put in place of the concept wherever it occurs; and we speak of an *implicit* definition when such a combination cannot be specified. I retain the usage employed in this section because it has gained a certain citizenship in philosophical literature since the first edition of this book appeared and because there is no danger of any misunderstanding.

§ 8. The Nature of Judgments

From the considerations set forth in the preceding section, we learn that a full insight into the nature of concepts can be obtained only if we first explore the nature of *judgments*. For, implicit definitions determine concepts by virtue of the fact that certain axioms — which themselves are judgments — hold with regard to these concepts; thus such definitions make concepts depend on judgments. All other types of definitions likewise consist of judgments. At the same time, concepts appear in all judgments, so that judgments in turn seem to be composed of and to presuppose concepts. Concepts and judgments are thus correlative. They imply one another; the one cannot exist without the other.

Clearly, concepts exist only so that judgments can be made. When people designate objects by means of concepts and concepts by means of words, they do so only in order to think and speak about these objects, that is, to make judgments about them. What then is a judgment?

Here we are not concerned with the psychological character of the act of judging anymore than we were with the nature of the mental processes that represent concepts in the reality of consciousness. Moreover, the nature of judging as a psychical act does not