

Method p. 254 f.

to I quote this, not because I propose to speak of God or transcendence, but have a precise formulation of a difficulty that I feel many of you have with my talk about mental acts.

First do not believe that mental acts occur without a sustaining flow of expression. It may not be linguistic. It may not be adequate. It may not. It may not be presented to the attention of others. But it occurs. Cassirer aphasia agnosia apraxia.

in Secondly, I have no doubt that the ordinary meaningfulness of ordinary language is essentially public and only derivatively private. For language is ordinary if it is in common use. It is in common use not because some isolated individual happens to have decided what it is to mean, but because all individuals in the relevant group already understand what it means. Similarly, it is by performing expressed mental acts that children and foreigners come to learn a language. But they learn the language by learning how it ordinarily is used, so that private knowledge of ordinary usage is derived from the common usage that essentially is public.

Thirdly, what is true of the ordinary meaningfulness of ordinary language is not true of the original meaningfulness of any language, ordinary, literary, or technical. For all language develops and, at any time, any language consists in the sedimentation of the developments that have occurred and have not become obsolete. Now developments consist in discovering new uses for existing words, in inventing new words, and in diffusing the discoveries and the inventions. All three are a matter of expressed mental acts. The discovery of a new usage is a mental act expressed by the new usage. The invention of a new word is a mental act expressed by the new word. The communication of the developments and inventions can be done technically by introducing definitions, or spontaneously as when A utters his verbal constellation, B responds, A grasps in B's response how successful he was in communicating his meaning and, in the measure he has failed, he seeks and tries out further developments or inventions. Through a process of trial and error a new usage takes shape and, if there occurs a sufficiently broad diffusion of the new usage, then a new ordinary usage is established. Unlike ordinary

meaningfulness, then unqualified meaningfulness originates in expressed mental acts, is communicated through them, is perfected in a process of trial and error, and attains ordinariness when the perfected communication is extended to a large enough number of individuals.

What is true of ordinary meaning is not only true but also explicit in systematic meaning. Distinguish formal, referential, and ~~ex~~ empirical system. Let me say that a formal system is one in which primitive terms are fixed by primitive relations and primitive relations are fixed by primitive terms. Next a formal system becomes referential when the primitive terms and relations are linked directly or indirectly (through derived terms and relations) to the data of experience. Finally a referential system becomes empirical when all its implications are verified in the data of experience.

On this showing, meaningfulness develops in three stages. Formal system is meaningful in the sense that ~~xxxxxx~~ the purely hypothetical can be meaningful. Referential system is meaningful in the sense that a hitherto unapplied part of mathematics can be given a ~~x~~ physical meaning. Empirical system arises when referential system becomes verified.

Now I feel that many of you will readily grant what I have been saying as long as it is applied to the field of natural science and, indeed, as long as it is extended to the human sciences provided they are assumed to have no ~~x~~ significant differences from the natural sciences. But I have been asked to explain my strategy and, very simply, it is a matter of applying the technique of formal, referential, and empirical system not to the data of external experience but to the data of internal experience, to the data of consciousness.

The formal system consists of three operators and four sets of operations. The three operators are questions: questions for intelligence such as what? why? how? how often? what for?; questions for reflection, Is that so? Are you certain? Is it only probable?; and questions for deliberation, Is that worth while? Is it truly good or only apparently good? The four levels of operations are ~~xxxxxxxxxxxxxxxxxxxx~~

(1) sense experience, (2) insights and formulations, (3) reflective understanding and judgement, and (4) evaluation and decision. Such are the primitive terms. The primitive relations are implicit in the primitive terms. The first operator, what why how how often what for, promotes consciousness from sense experience to the effort to understand. The effort to understand leads to acts of understanding. Acts of understanding lead to formulations that express both the understanding itself and what is essential to the understanding in the data or schematic image. The second operator, is that so, promotes consciousness from intelligible formulations to the search for a sufficient reason for affirming the formulations. This leads to acts of reflective understanding in which sufficient reason is grasped. Reflective understanding leads to judgement, to an affirmation or negation because of the sufficient reason that has been grasped. Let us leave evaluations and decisions to next Monday.

The transition from formal system to referential system is effected by noting that the foregoing operators, operations, and relations are given in consciousness. First, then, the operators and operations are expressed by transitive verbs in the active voice; ~~xxxxxxxxxxxxxxx~~ since the verbs are transitive they are related to objects; moreover, the relation to objects is not merely grammatical but also psychological. By the operator there is intended an object that as yet is not known. By the operation there becomes present an object that otherwise would be unknown. Seeing makes present what is seen; hearing makes present what is heard; touching makes present what is felt; insight makes present the intelligibility of what is understood; etc. Such is the intentionality of operations and operators. But there is also a further aspect to them, consciousness. The transitive verbs in the active voice have not only objects but also subjects. By consciousness is meant that^a the activation of operations or operators makes the subject aware of himself and of his operators and operations. And note that this awareness does not consist in the presence of an object. The object is what is intended, attended to, sensed, understood, thought, reflected on, affirmed. The subject is aware of himself through his intending, his

attending, his inquiring, his coming to understand, his formulation of what he has understood, etc. The subject is present to himself, not as part of the spectacle, but through his role as spectator.

The transition from the referential system to the empirical system involves an extension of the ordinary meaning of empiric¹. Ordinarily by empirical is meant what is verified by an appeal to sensitive observation or sensible experience. In the extended sense I beg leave to use for this half hour, we shall use the word, empirical, to denote what is verified in the data of sense or in the data of consciousness.

Of course, as does happen, by generalizing the meaning of empirical we have also generalized the meaning of verification. Ordinarily verification is public in the sense that anyone sufficiently in the know and with the proper equipment can repeat for himself the act of verifying, or that several such persons can perform the verification as a team. However, what is verified in the data of consciousness is essentially a private performance. One has to do it by oneself and for oneself. Unless one does so, talk about the data of consciousness will be no more illuminating than a disquisition on color to the blind or a treatise on counterpoint to the deaf.

However, the operations to be performed if one wishes to attempt the verifying can all be indicated in ordinary, mathematical, or scientific language. So in my book, Insight, the first chapter is devoted to provoking mathematical insights and begging the ~~read~~ reader to advert to them. Chapters two to five are concerned with the insights of physicists, Chapters six and seven are devoted to commonsense insights, the insights behind ordinary language. Chapters nine to thirteen are concerned with judgements, their grounds, and their objectivity. Hence while the actual performance of verifying is private, still the whole process of performing the operations and adverting to them can be under the direction of publicly meaningful statement.

Moreover, it is rather embarrassing to claim that one has attempted the verification and did not succeed. Either one is going to admit the occurrence of the experience of seeing, hearing, tasting, smelling, touching, or else one will have to claim that one has been ~~walking~~ living the life of a perpetual sleepwalker.

tell his pupils

Who is going to say that never in his life he has been puzzled, never tried to understand anything, never had the experience of coming to understand and of formulating what he had grasped. Who will preface his books with the declaration that never pause to reflect on his opinions, scrutinize them, ask whether there was any evidence for them, indeed ever have any experience of anything that could be named evidence. Who will assure his friends that never has he asked himself whether what he was doing was worth while, never evaluated various courses of action, never made a decision on the grounds that what he decided was the right thing to do.

But if there is a presumption that the operators, the operations, and the relations between them are verifiable in an extended sense of that term, one is not to assume that this type of verifying is as simple as rolling off a log. In the first place human knowing is not simple. It is a compound of quite different operations each of which contributes only a part to the whole. The several operations have to coalesce into a single knowing, and the several partial objects of the partial operations have to be compounded into a single object. What is experienced, comes to be investigated. What is investigated comes to be understood. What is understood can be formulated intelligently. What is formulated intelligently, can be checked. What is checked satisfactorily, is found sufficiently grounded to be affirmed. To simplify the foregoing statement let us say that human knowing consists in experiencing, understanding, and judging. Now experience is either external or internal, either sensitive or conscious. It follows that there are two types of human knowing: one may compound sense experience with understanding and judging; and one may compound ~~xxxxxxxxxxxxxxxxxxxx~~ experience as conscious with understanding and judging. It is the latter procedure that is needed for our purpose. It will involve consciously experiencing each of the operators, operations, and the relations between them; next it will involve understanding the operators and the operations in each of their several relations; finally it will involve finding the evidence for affirming that the operators and operations exist and have been correctly understood.

To carry out these procedures one has to be operating in a twofold context. There is the lower context of the operations to which one is adverting. There is the upper context of the inquiry in which the adverting takes place. The lower context ~~mayxxxxxxxoperationxxxxxxx~~ for example may be closing and opening one's eyes, and the upper context will be the scrutiny that adverts not merely to the seen but also to the experience of seeing. Again, the lower context will be any of the ~~ex~~ endless instances of problem-solving, and the upper context will be an exhaustive scrutiny of all the elements that go into the solution, from the formulation of the problem, the heuristic structure in which the unknown solution is named and all its properties are listed, to the insight that grasps the solution from its properties. At a further stage the lower context will be supplied ~~by~~ successively by each of the different types of judgement, and the upper context will be the investigation that determines just what happens in one's arriving at a judgement. In brief, what I am saying is that introspection is not just an inward look but an investigation that proceeds on two levels: there is the lower level that secures the conscious occurrence of the operations under study, and there is the higher level on which the study takes place.

at best/

Now it may be felt that such procedures may be interesting or even exciting, but that they cannot arrive at results of philosophic import. Nothing more can be expected/than an ongoing series of ever better results. That is just psychology. It is not philosophy. Now I have no doubt that any study of our cognitional operations, no matter how well done, will be open to corrections and improvements due to later studies. But I would note that this process of ongoing revision has its conditions. For one thing, it cannot eliminate the possibility of revision. Now a revision supposes data that an earlier account overlooked. It supposes fresh insight that accounts satisfactorily both for the earlier data that were known and as well for the new data that were overlooked. It supposes that one will judge that the later more comprehensive insight will be judged more probable than the insight it would correct. In brief any revision presupposes a level of experience, where

the new data are observed, a level of understanding, where the new insights occur, and a level of judgement, where the new insights are accepted as more valid. In brief, a cognitional theory in terms of experience, understanding, and judgement can be improved by fuller study. But it cannot be changed in its fundamental features without discovering an entirely new meaning to the process named revision. That is a feature that is lacking in other instances of empirical inquiry. Its presence in cognitional theory gives that theory a durability that I should regard of philosophic significance.

Its significance is, of course, the significance of an invariant and, indeed, of an invariant that possesses further implications. By cognitional theory one comes to know ~~w~~ just what one is doing when one is knowing. On the basis of a cognitional theory one can come to know just why doing that is knowing; and that is an epistemology. On the twofold basis of cognitional theory and epistemology one can go on to determining what one knows by cognitional activity.

What is the general strategy? A complement to my first talk.

Is the world mediated by meaning real? My original plan.

What is meant by reality? What are the criteria for claiming to know it?

At a first approximation there are two candidates for the meaning of the word, real: the first is the world of immediacy in which one lives in one's infancy; the second is the world one comes to know through successive differentiations of consciousness.

But the existence of two candidates ~~it~~ gives rise at a second approximation to the emergence of a series of other candidates

For the naive realist the real world is the world mediated by meaning but it is known, not by experiencing, understanding, and judging, but simply by taking a good look, i.e. by employing the criteria relevant to the world of immediacy.

The empiricist takes the naive realist seriously. The criteria ^{are} for reality ~~are~~ the criteria of the world of immediacy. Consequently one has to empty the world mediated by meaning of all the additions to experience brought about by inquiry understanding formulation reflection weighing the evidence ~~and~~ and judging

The critical idealist takes the empiricist seriously. He is awakened from his dogmatic slumbers. He lays it down that immediate knowledge of objects is only by Anschauung, by taking a good look. It follows that the categories of the understanding of themselves are empty; they can be applied however to the objects presented by Anschauung and so by ~~this~~ the mediation of sense become relevant to ~~the~~ objects. Further it follows that the ideals of reason of themselves are empty; they can become related to objects only if they are employed to guide the use of the categories of understanding when applied to the presentations of sense. Finally it follows that, while the world mediated by meaning ~~is not the world of things-themselves but only phenomenal,~~ is not the world of things-themselves but only phenomenal, still the use of the categories of the understanding under the guidance of the ideals of reason (properly understood) is the one intelligent and reasonable thing one can do.

The absolute idealist wants to restore speculative reason, not indeed in the old scholastic or rrationalist sense in which speculative reason revealed the real world, but, but in a new sense by new techniques that led to the mental reconstruction of the universe in all its aspects.

While the absolute idealists enormously enriched the scope of philosophy, their ambition to restore the p'rimacy if speculative reason has not been widely followed. Schopenhauer wrote on *Die Welt als Wille und Vorstellung*, the World as will and representation. Kirkegaard took his stand on faith. Newman took his on conscience. Nietzsche turned to the will to power. ~~Kierke~~ Dilthey aimed at a *Lebensphilosophie*. Blondel wanted a philosophy of action. Paul Ricoeur has not yet finished his philosophy of will. And in the same direction have proceeded pragmatists, existentialists, and personalists.

to a sk/

While I agree with this tendency and would say that what in the last analysis is decisive is a decision, an option, a commitment, still I do not think that such a decision, option, commitment is either blind or arbitrary. One can commit oneself with one's eyes wide open. But/the precise meaning of that metaphor is to raise our second question, What are the criteria that are to be met in claiming to know it.

I distinguish a proximate criterion and a remote criterion.

The proximate criterion regards single judgements. The remote criterion regards the context of judgements within which any single judgement is inserted, through which it is interpreted, which it corrects or modifies. I begin from the proximate criterion.

The notion of judgement will be clarified by distinguishing utterance sentence proposition consideration and assent.

If A says the king is dead and B says the king is dead, there are two utterances but only one sentence.

If A says the king is dead and B says *Der König ist tot*, there are two sentences but only one proposition. Similarly if A writes $2 + 2 = 4$ and B writes $10 + 10 = 100$ there are two sentences but only one proposition.

Now propositions may be merely considered and then they are no more than objects of thought; but again propositions may meet with a person's assent and then they become that person's judgements.

Why does one assent to propositions? I shall indicate a general form, and then apply it to different cases.

The general form is: If A, then B; but A; therefore B.

In the major, B is a condition; in the minor its conditions are fulfilled; the fulfilment of the conditions makes a virtually unconditioned; because it is a virtually unconditioned, it is asserted in the conclusion

However, not all judgements can be conclusions. So one has to proceed from the virtually unconditioned as expressed in propositions to a more primitive virtually unconditioned that ~~is~~ arises in the prior activities of experiencing understanding and putting the question for reflection, Is that so?

Then the question for reflection, Is that so? will indicate the conditioned. The fulfilment of the conditons will be found in the data of sense or of consciousness. The link between the conditions and the conditioned, the equivalent of If A then B, will be found inasmuch as the process from the data to the proposed judgement satisfy the criteria of intelligence and reasonableness.

Let us apply this to different cases of judgement.

Concrete Judgements of fact.

X A worker leaves his neat and tidy home in the morning and returns at evening to find the windows broken, smoke in the air, the walls splashed with x water, the furniture soaking wet, and the floor covered with inches of it. He makes a concrete judgement of fact, an extremely restrained one, namely, something happened.

This judgement can be expressed in syllogistic form: If the data on my hmoes in the evening differ from the data on my home in the morning, then something must have happened.

But the two sets of data differx. Therefore something must have happened.

Normally, however, people do not syllogize. In the difference of data on the same object they grasp a fact of change. Such a grasp is an insight, a direct act of understanding. Moreover, it is an invulnerable insight. Insights are vulnerable when there are further relevant questions to be asked. ~~But when~~
~~there are no further relevant questions, the insight is~~
~~invulnerable.~~

For the further questions may give rise to further insights, and the further insights may complement, qualify, correct the insight already had. But when there are no further relevant questions, when many questions might be raised but would not modify what already has been grasped (Was there a fire? Where is my wife?), the the insight in possession is invulnerable.

Analogies and Generalizations

They proceed on the principle that similars are similarly understood

In other words, there has to be a significant difference in the data for one set to be understood one way and another similar set to be understood in another way. Object to an argument from an analogy or to a generalization, and the rejoinder will be, What's the difference?

Common sense judgements

Common sense is the development of intelligence, the accumulation of insights, that is expressed in ^{the} ordinary language of some people, class place and time. It is the guide of everyday living speaking doing. It is generated by the group each partly finding things out for himself or herself and partly learning from others. This finding things out is a matter of an insight generating a further relevant question leading to another insight that in turn generates a further relevant question and so on repeatedly until one masters the matter in hand, and so with no further relevant questions one proceeds to judge. Sociology of knowledge.

Probable judgements

When there are no further relevant questions, judgement can be certain. When further relevant questions are known or can be expected, then occur judgements that are probable. So in general scientific judgements are probable. That something has been discovered may be certain, but that that discovery is definitive, that there will not arise further questions to qualify or modify or correct what now is known, is far from certain.

Analytic propositions and principles

An analytic proposition is a proposition that follows from the definition of its terms. If A is defined as possessing a relation, R, to B, there may be derived the analytic proposition: ? Every A has the relation R to a B.

An analytic principle is an analytic proposition whose terms and relations, in the sense defined, are verified in all relevant instances to which the terms refer.

A provisional analytic principle is one whose terms and relations probably are verified in all relevant instances. Pure water is H₂O. Serially analytic principles are the principles that generate the ranges of systems ^{instances} some of whose elements can be verified.

Different Realms in the World mediated by meaning

We & may say that the moon exists and that the logarithm of the square root of minus one exists. But this does not mean either that the moon can be derived from suitable postulates or that the logarithm in question can be inspected sailing around the sky.

So we distinguish different realms

The principal realm contains the objects that are verified in the data of sense and consciousness

Subsidiary, qualified realms have various degrees of relevance to the principal realm: the logical, the mathematical, the hypothetical.