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SOME ELEMENTARY REFLEXIONS ON SENSE-PERCEPTION¹

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SENSE-PERCEPTION is a hackneyed topic, and I must therefore begin by craving your indulgence. I was moved to make it the subject of this evening's lecture by the fact that I have lately been reading the book in which the most important of the late Professor Prichard's scattered writings on Sense-perception have been collected by Sir W. D. Ross. Like everything that Prichard wrote, these essays are extremely acute, transparently honest, and admirably thorough. I shall not attempt here either to expound or to criticize Prichard, but he may be taken to be hovering, perhaps somewhat disapprovingly, in the background during the lecture.

"Sense-perception" is a technical term (and, I hasten to add, none the worse for that) used by philosophers and psychologists to cover the experiences which we describe in daily life as "seeing," "hearing," "touching," "tasting," "smelling," and perhaps some others. For human beings the three most important species are seeing, hearing, and touching. I shall confine myself to these.

Many philosophers have tended to concentrate on *seeing*, and to treat hearing and touching in a rather perfunctory way. That is a mistake. It is very rash to assume that what holds for seeing can be transferred without supplement, omission, or modification to hearing or to touching. Seeing is, as we shall find, in some ways a very peculiar form of sense-perception.

I want to begin by considering the three main forms of sense-perception from what I will call a "purely phenomenological point

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PHILOSOPHY

of view." By this I mean that I shall try to describe them as they appear to any unsophisticated percipient, and as they inevitably *go on appearing* even to sophisticated percipients whose knowledge of the physical and physiological processes involved assures them that the appearances are largely misleading.

Sentences which begin with the phrase "I see" or "I am seeing" continue with a word or phrase by which the speaker intends to denote or to describe something which he claims to be seeing, e.g., "a penny," "the Albert Memorial," "a blue cross on a yellow field," and so on. This latter word or phrase is generally a name for, or a description of, a *body* of some kind. But that is not so invariably. A person may say: "I see a red flash." Here what he claims to see is an *event* and not a thing.

It will be useful at once to compare and contrast this with *hearing*. It is about equally common to speak of hearing a *body* and of hearing a *sound*. Thus, e.g., one can say: "I hear Big Ben" and "I hear a series of booming noises." Now in this case even the plainest of plain men would admit, with very little pressure, that when he says "I am hearing Big Ben" this is short for what would be more fully expressed by saying "I am hearing Big Ben *striking*." With very little more pressure he would admit that all that he literally *hears* is a series of booming noises of a certain kind. He says that he hears Big Ben striking, because he believes or takes for granted that these sounds *emanate from* a certain bell as a result of a certain rhythmic process going on in it. In general I think that common-sense would readily accept the following translation of such sentences as "I am hearing so-and-so," where "so-and-so" is a name or a description of a body. Such sentences, it would agree, are equivalent to: "I am hearing such and such a *noise*, and I take it to be coming from the *body* so-and-so."

I do not think that it makes any essential difference to the above analysis whether what is heard is a discontinuous series of sounds, e.g., the tolling of a bell, or a long continuous sound, e.g., the roar of a waterfall. The continuous roar, like the discontinuous series of clangs, is taken to *emanate from* a certain body, as a result of a continuous physical process, instead of a discontinuous series of physical events, in it.

Now common-sense will not accept any such analysis of the sentence: "I am seeing the Albert Memorial." If you press a plain man with questions, you will easily get him to admit that all that he literally *sees* at any one moment is a *limited part* of the *outer surface* of a certain body. He will say that he *knows* that this must be continued and completed by areas which he is not at present seeing, so as to form the outside of a body, whether solid or hollow. And he will say that he *believes or takes for granted* or even "*knows*" that that body answers to the description of the Albert Memorial. But he will not

SOME ELEMENTARY REFLEXIONS ON SENSE-PERCEPTION

admit that what he really sees is either a very quick sequence of colour-events or a continuous colour-process analogous to the continuous roar of a waterfall. Nor will he admit that the only sense in which he can be said to see a body is that he takes for granted that these colour-events or this continuous colour-process *emanate from* a certain body. This would plainly be a complete misdescription of the experience which one has when one says that one is seeing a body, as that experience appears to oneself at the time.

This may be reinforced by considering cases where a person *would* say that he is seeing, e.g., a red flash or a continuous glare, i.e. a colour-event or a colour-process. Suppose that on a dark night I were to see a series of flashes of a certain kind at regular intervals in a certain direction. I might well say: "That is the so-and-so lighthouse." But I should not say that I *see* the lighthouse. If anyone were to ask me explicitly, I should say: "No! I can't see *it*; I see only the flashes which I take to be made by the lamp in it."

There is the following important phenomenological difference between hearing a sound and seeing a flash. It would no doubt be quite usual to say "That flash *comes from* the lighthouse," just as we say "That sound *comes from* the clock." But there is this difference. The flash is literally seen as an occurrence of a certain colour within a *limited* region *remote from* the percipient's body. It may even be seen as having a definite shape and size, as, e.g., in the case of seeing a flash of fork-lightning. But the noise is not literally heard as the occurrence of a certain sound-quality within a limited region remote from the percipient's body. It certainly is not heard as having any shape or size. It seems to be heard as *coming to* one from a certain direction, and it seems to be thought of as pervading with various degrees of intensity the whole of an indefinitely large region surrounding the centre from which it emanates.

We may sum this up as follows. In its purely phenomenological aspect *seeing* is ostensibly *saltatory*. It seems to leap the spatial gap between the percipient's body and a remote region of space. Then, again, it is ostensibly *prehensive* of the surfaces of distant bodies as coloured and extended, and of external events as colour-occurrences *localized* in remote regions of space. In its purely phenomenological aspect *hearing* is ostensibly *prehensive*, not of bodies, but only of events or processes as occurrences of sound-qualities. It is not ostensibly *saltatory*, for these events or processes are not heard as localized in remote restricted regions of space. They are heard rather as emanating from remote centres and pervading with diminishing intensity the surrounding space.

Let us now compare and contrast seeing and hearing with *feeling*, still from the purely phenomenological standpoint. In the case of feeling we must first draw a distinction between what may be called

PHILOSOPHY

its qualitative and its dynamical aspects. In the former it is more or less analogous to seeing and to hearing, but in the latter it is, so far as I can see, quite unique. When one has an experience which one would describe as "feeling a body," e.g., with one's hand, one feels it as rough or smooth, hard or soft, and so on. One also feels it as hot or cold. Both these features in the experience belong to its qualitative aspect, and we may distinguish them as "textural experiences" and "temperature-experiences." But closely bound up with the experience of feeling an external body is the experience of actively pushing or pulling it and making it move or stay still in spite of its varying degrees of resistance to one's efforts. This is an example of the dynamical aspect of the experience of feeling. Another example is the experience of trying and failing to move a resting body or to stop a moving one and failing because the resistance which it offers is too great. A third example is the experience of being forced to move in a certain direction by the thrust and pressure of a foreign body in spite of resisting to one's utmost. In these dynamic experiences one seems to oneself not merely to be prehending and exploring the surfaces of foreign bodies, as one seems to oneself to be doing in the case of sight. One seems also to be *interacting* with them, as one does not seem to oneself to be doing when one merely sees or hears them.

In the textural subdivision of its qualitative aspect the experience which we describe as "feeling a body" is much more closely akin to the experience which we describe as "seeing a body" than to any case of hearing. We never talk of feeling *events* or *processes* of roughness or smoothness or hardness or softness. In this respect feeling is ostensibly prehensive *only* of the *surface of bodies*. Just as we ostensibly see the surfaces of bodies, and see them as coloured in various ways, so we ostensibly feel them as rough or smooth, hard or soft. The difference here between sight and feeling is that the former is, and the latter is not, ostensibly saltatory. One can perceive a foreign body as rough or smooth, hard or soft, only when it is in contact with one's own body. It is a natural, if paradoxical, way of speaking to say that seeing seems to "bring one into direct *contact* with *remote* objects" and to reveal their shapes and colours, as feeling reveals the shapes and textures of objects which are literally in contact with one's skin.

When we consider temperature-experiences, however, we find that feeling provides an interesting intermediate case between hearing and seeing, in its phenomenological aspect. Suppose that one is in the neighbourhood of a fairly hot body, e.g., a radiator. Suppose that one gradually approaches it and finally touches it. While one is approaching it the feeling-experience is phenomenologically akin to the experience of hearing which one has when approaching a body which is emitting a continuous sound, e.g., a waterfall. The warmth,

SOME ELEMENTARY REFLEXIONS ON SENSE-PERCEPTION

like the roaring, seems to pervade the region surrounding the body and to be present in steadily increasing intensity in regions close to it. But when one finally touches the body one has a temperature sensation (combined of course for the first time with textural sensations, and it may be with pain-sensations and dynamic experiences) which is phenomenologically akin to the visual experience which one would describe as seeing the coloured surface of a body. The hotness is now felt as spread out over a limited localized surface, just as the colour is all along seen to be. We say *both* that a body is hot and that it emits warmth; we say that it is red, but *not* that it emits redness; and we say that it emits a roaring, but *not* that it has the auditory quality of roaringness.

I will now leave the purely phenomenological description of the three main forms of human sense-perception, and begin to take into account what we know or believe about the physical processes involved in them. In the light of this knowledge or well-founded belief we can consider whether the phenomenological character of these experiences is or is not misleading as an indication of their epistemological character.

The first important fact that emerges is that, as regards its physical conditions, seeing is almost exactly analogous to hearing, although phenomenologically the two kinds of experience are so extremely unlike. From the physical standpoint seeing a body which is self-luminous, e.g., the sun or a glowing wire, is almost exactly like hearing the roar of a waterfall. From the phenomenological standpoint, as we have seen, the two experiences differ in kind. The former appears to the percipient as the prehension of the coloured surface of a remote definitely localized body, whilst the latter appears to him as the prehension of a process coming to him from a distant centre and pervading the intervening space.

The physical theory of sound fits in very easily with the phenomenological character of the experience of hearing. One can see or feel the clapper of a bell striking the inside of it, and can see or feel the surface throbbing. One can stamp one's foot at one end of a gallery and hear the echo appreciably later than the sound of the original stamping. So we have no difficulty in accepting the fact that one hears a sound when and only when a certain process, set up in the intervening air by the vibration of a distant body, reaches one's ears. But the physical theory of light conflicts sharply with the phenomenological character of the experience of seeing.

Nevertheless, the theory of geometrical optics and the later theory of physical optics are of course based on a systematic study of our experiences of seeing and feeling. Geometrical optics is based on correlating experiences of normal direct vision through a homogeneous medium with experiences of seeing in mirrors of various

PHILOSOPHY

forms, of seeing through non-homogeneous media of various densities, and so on. Physical optics is based on a further correlation of all this with more recondite experiences of seeing, which can be had only by making astronomical observations or doing specially designed physical experiments.

Now as soon as one ceases to confine one's attention to completely standard cases of direct vision through a homogeneous medium, it becomes quite plain that seeing is radically different from what it appears *prima facie* to be. Before going into detail it will be as well to consider the logical principles involved.

Suppose that the experience which one should naturally describe as "seeing a body of a certain shape and colour at a certain place" really consists in or involves prehending a certain part of the surface of such a body at that place. Then it is *logically* impossible that that experience should have occurred when it did, unless there was at that time a body in that place, such that the part of its surface which was then facing one had the shape and the colour which one then saw. For that is part of what is *meant* by this account of the experience. It is important to notice that the mere fact that a transmissive process must take place in the intervening space and must affect one's eye, if the experience is to occur, is not by itself a conclusive objection. For this might be merely a causally necessary, but insufficient, condition for the occurrence of the experience. It is logically possible that this condition might be fulfilled and yet that the experience could not occur unless there were at that time a body of the required kind at the place in question. What would be fatal to the prehensive account of the experience would be if it could be shown that, provided one's eye is suitably affected, the experience may arise even though no such body is then occupying the place in question. Now there are empirical facts which make this practically certain.

Nothing more recondite than vision in a plane mirror is needed to justify this statement. Suppose one stands facing such a mirror and holds up one's *right* hand with the palm facing the mirror. Then one seems to see a hand, with the palm facing one, held up at a place some distance behind the surface of the mirror. Now we know very well that there is no such body in that place at the time. Moreover, what one seems to see presents the appearance which would be presented, *not* by one's right hand, but by one's *left* hand, if it were held up with the palm facing one at the place behind the mirror where one seems to see a hand. Yet here, just as much as in the most normal case of direct vision through a homogeneous medium, one seems to oneself to be prehending a part of the coloured surface of a certain body in a certain region of space remote from that occupied by one's head and eyes. This unavoidable appearance is *here* certainly

SOME ELEMENTARY REFLEXIONS ON SENSE-PERCEPTION

misleading. No doubt it would be possible in theory to admit this, and yet to maintain that in the one case of direct vision through a homogeneous medium one really is (as one appears to oneself to be in *all* cases) prehending a part of the coloured surface of a remote foreign body. But, in view of the continuity between the most normal and the most abnormal cases of seeing, such a doctrine would be utterly unpalatable and could be defended only by the most desperate special pleading.

The conclusion that the phenomenological character of the experience of seeing is a radically misleading guide to its epistemological character is strongly reinforced when we take into account the empirical facts which lie at the basis of the statement that light has a finite velocity. Suppose that on a certain occasion a person has an experience which he would naturally describe by saying that he sees a certain star in a certain direction. There is overwhelming evidence that he would be having precisely the same kind of experience on that occasion even if the star had ceased to exist for many years or had long ago moved into a quite different position relative to his body. That is to say, at the time when a sane waking person has an experience, which inevitably appears to him to be a prehension of a certain remote coloured body as now lying in a certain direction relative to his own, there may be nothing answering even remotely to the description of such a body anywhere in that direction. Therefore the phenomenological character of the experience is completely misleading as to its epistemological character.

Let us next consider the epistemological character of experiences of feeling. If we confine our attention to the waking experiences of sane persons in normal health, there is, so far as I know, little specific ground for doubting that touch is, as it appears to be, prehensive of the surfaces of foreign bodies in contact with one's own. The only direct counter-evidence that I know of is the experience of seeming to feel *two* bodies in contact with one's skin at a place where one's own sight and the sight and touch of others testify to the presence of only one. Such experiences are by no means common; for my own part I have seldom managed to get the experience of "feeling double." As regards the dynamical aspect of feeling, I do not know of any case of a sane waking person having an experience which he would naturally describe as pushing or pulling or being pushed or pulled by a foreign body, when there is good reason to hold that no such interaction is taking place. No doubt, if we take into account the dreams of sane persons in normal health and the experiences of madmen and of persons in delirium, the case is altered. In any dream the dreamer may seem to himself to be touching foreign bodies which feel rough or smooth, hot or cold. And in nightmares he may seem to himself to be struggling desperately to free himself

PHILOSOPHY

from the weight or the grip of a foreign body. So it must be admitted that experiences, which are phenomenologically indistinguishable from waking experiences in which we say that we are feeling and interacting with a foreign body, can and do occur when the experient is not in fact prehending by touch or interacting with any such body.

I pass now from the physical to the anatomical and physiological conditions of our experiences of seeing, hearing, and feeling. There seems to be overwhelming evidence for the following statement. Even when a person's eyes or ears or skin are stimulated by the appropriate physical stimulus, he does not have any corresponding experience of seeing or hearing or feeling unless and until a certain internal change is transmitted from the stimulated sense-organ to a certain part of his brain and sets up some kind of disturbance there.

Now we can begin by making the same remark about this fact as we have already made about the fact that seeing or hearing do not occur unless and until a physical process of transmission has taken place in the medium between the foreign body and the eye or ear. The physiological and anatomical facts just stated do not suffice to prove that seeing, hearing, and feeling are not, as they inevitably appear to the experient to be, prehensions of external things or events and of certain of their intrinsic qualities. It might be that these processes in the sensory nerves and the brain are a causally necessary, but insufficient, condition for the occurrence of such experiences. It is logically possible that this condition might be fulfilled, and yet that one would not have an experience which one would naturally describe as seeing or hearing or feeling an external object of a certain kind in a certain place unless there were at the time an external object answering to one's description at the place in question. What would be fatal to the prehensive account of these experiences would be if it could be shown that, provided a certain area of one's brain were suitably affected, such an experience might occur even though no such object were then occupying the place in question. Now the visual, auditory, and tactual experiences which occur in dreaming and in waking hallucination seem to make this practically certain.

There is a logical point which should be emphasized here. Suppose it could be shown that the occurrence of a certain disturbance in a certain part of a person's brain at a certain time is the immediate *sufficient* condition of his then having an experience which he would naturally describe as seeing or hearing or feeling a foreign object of a certain kind in a certain place. Then it would follow at once that the actual presence of such an object in that place at that time *cannot* be a *necessary* condition of the occurrence of the experience. From this it would follow at once that the experience *cannot* be, as it appears to be to the person who has it, a prehension of the object in

SOME ELEMENTARY REFLEXIONS ON SENSE-PERCEPTION

question. In that case the utmost that could be alleged is that the presence of such an object in the place in question at a somewhat *earlier* date is an indispensable *causal ancestor* of that disturbance in the brain which is the immediate sufficient condition of the occurrence of the experience.

Now I do not wish to commit myself to the sweeping assertion that the occurrence of a certain kind of disturbance in a certain part of a person's brain is the immediate *sufficient* condition, as distinct from an immediate necessary condition, of his having an experience which he would naturally describe as seeing, hearing, or feeling a certain kind of foreign object in a certain place. Therefore I cannot use the knock-down argument which I have outlined above. But that is not really needed in order to refute the prehensive account of such experiences. All that is needed is to show that a person can have experiences, which he would naturally describe as seeing or hearing or feeling a foreign object at a certain place, at a time when there is in fact no such object at that place. For this purpose it is enough to adduce the visual, tactual, and auditory experiences which occur in dreaming and in waking hallucination, and the visual experiences of "seeing" a mirror-image or a distant star which no longer exists.

It would, no doubt, be theoretically possible to admit the conclusion about dreams and waking hallucinations, and yet to maintain that a sane waking man, in his *tactual* experiences at any rate, really is prehending a part of the intrinsically hot or cold, rough or smooth, surface of a foreign body in contact with his skin. But anyone who does so is committed to the following paradox. He has to hold that the tactual experiences of dreams and hallucinations, on the one hand, and those of normal waking life, on the other, are utterly different in their epistemological character, in spite of being exactly alike in their phenomenological character. There is one respect, and one only, in which his position is less paradoxical than that of a person who should maintain that direct vision through a homogeneous medium is prehensive of remote foreign objects, whilst admitting that vision in a mirror or through a non-homogeneous medium cannot be so. There is a continuous series of intermediate cases between the most normal and the queerest instances of seeing by sane waking men. But there is no such series of intermediate cases between dreaming or waking hallucination, on the one hand, and normal waking sense-perception, on the other.

There is one other point which should be mentioned before leaving the present part of our topic. It might be alleged with considerable plausibility that a person could not have dreams or waking hallucinations unless and until he had had a good deal of normal waking sense-perception. It might further be remarked that we do in fact distinguish between our dreams and waking hallucinations, on the

PHILOSOPHY

one hand, and our normal waking sense-perceptions, on the other. Now I think that some people would be inclined to hold that these observations undermine the argument from the occurrence of dreams and waking hallucinations to the non-prehensive character of normal waking sense-perceptions. Such a contention is, I think, mistaken.

The argument which is alleged to be undermined comes simply to this. There are certain experiences, viz., dreams and waking hallucinations, which exactly resemble normal waking sense-perceptions in all their phenomenological characteristics (including that of being ostensibly prehensive of foreign bodies and external physical events), but which are certainly not in fact prehensions of any such objects. It seems most unlikely that experiences which exactly resemble these in all their phenomenological characteristics, as do normal waking sense-perceptions, should be fundamentally unlike them in their epistemological character.

Now the mere fact that to have had normal waking sense-perceptions is a necessary causal precondition for having dreams and waking hallucinations does not entail or even make probable that the former differ fundamentally in their epistemological character from the latter. So this alleged fact is irrelevant to the validity of the argument and to the truth of its conclusion.

The fact that we do manage to distinguish between our dreams and waking hallucinations on the one hand, and our normal waking sense-perceptions on the other, might seem at first sight to be relevant in the following way. It might seem to be incompatible with the premiss that dreams and hallucinations exactly resemble normal waking sense-perceptions in all their phenomenological characteristics. That, however, is a mistake. We do not distinguish the two kinds of experience by noting dissimilarities in their *phenomenological* character. We do so by considering the *inter-relations* of experiences with the earlier and later experiences of the same person and the contemporary experiences of others.

On the whole, then, I see nothing for it but to draw the following conclusion. Our waking experiences of seeing, hearing, and touching are not, as they appear to us to be, prehensions of foreign bodies and physical events and of certain of their intrinsic qualities.

We are now in a position to consider the notion of "sense-data" or "sensa," which played so great a part in the philosophy of sense-perception in the first thirty years of this century and has been so heavily belaboured since then. It seems to me that the best way to approach the question is the following. For such reasons as I have given above, most philosophers have felt obliged to deny that experiences of seeing, hearing, or feeling are prehensions of foreign bodies and physical events, and to deny that they even contain prehensions of such entities as constituents. To that extent they felt

SOME ELEMENTARY REFLEXIONS ON SENSE-PERCEPTION

obliged to hold that the phenomenological character of such experiences is a misleading guide to their epistemological character. But many of them saw no reason to think that the phenomenological character of these experiences is so radically misleading as it would be if they were not *prehensions of anything* and did not even contain as constituents *prehensions of anything*. They therefore assumed without question that these experiences really are, as they appear to be to those who have them, *prehensions of particulars of some kind*, though not of the surfaces of bodies or of physical events. And they assumed without question that the qualities, such as redness, squeakiness, hotness, etc., which we *seem* to ourselves toprehend on the surfaces of bodies or in physical events, really do belong to, and are prehendend in, these non-physical particulars.

We can now give a description of the technical term "sensum" or "sense-datum." We give this name to that particular which a person *really is* prehendend in any experience in which he *appears to himself* to be prehendend a physical event or a part of the surface of a body. We give it on the double assumption (i) that he *is* prehendend a particular of some kind, and (ii) that he is *not* prehendend a physical event or a part of the surface of a body. If this account of the meaning of the term be accepted, one thing at least is certain. The use of it presupposes a positive doctrine, viz., that experiences of seeing, feeling, and hearing do consist in or involve *prehendend* a particular of *some kind*, which has, and is prehendend as having, a certain intrinsic quality, e.g., redness or hotness or squeakiness. Unless this assumption is true there is nothing answering to the above description of a "sensum" or "sense-datum." So the question arises whether there is any reason to doubt this assumption.

In order to deal with this we must now consider more carefully a notion which I have so far left undiscussed, viz., that of prehendend a particular. I have intended to use this phrase as equivalent to one which was introduced many years ago by Earl Russell, viz., "being *acquainted with* a particular." I prefer this terminology to Russell's for the following purely linguistic reason. An essential feature of any experience which Russell would describe as "being acquainted with a certain particular" is that the latter presents itself to the experient as having a certain quality, e.g., as red, as hot, as squeaky, etc. Now it is linguistically awkward to say that a person is "acquainted with a certain particular as red." But it is not unnatural to say that a person "prehendend a certain particular as red." I use the expression "S prehendend x as red" as precisely equivalent to the phrase " x sensibly presents itself to S as red."

The meaning of these phrases cannot be defined, it can only be exemplified. One thing that is certain is that to prehend x as red is utterly different from *judging* that it is red or *knowing* that it is red.

PHILOSOPHY

In the dark and with my eyes shut I can judge that my doctor's gown is red, and in one sense of "know" I may be said to know that it is red. But in such conditions I am not prehending anything as red, or, what is precisely equivalent, nothing is being sensibly presented to me as red. Consider, again, the case of a cat or a dog, which has eyes very much like ours, but presumably lacks general concepts and therefore cannot literally know or judge that a certain predicate belongs to a certain subject. It may have, and very likely does have, experiences which would be described by saying that certain particulars sensibly present themselves to it as red or as hot or as squeaky.

It is generally taken to be meaningless to suggest that a particular which was not in fact red could sensibly present itself as red, or, what is equivalent, could be prehended as red. Suppose that a creature, which has appropriate general concepts and is capable of making judgments and knowing facts, prehends a certain particular as red. Then, it would commonly be said, this experience suffices to enable him to *know* the fact that it is red. Whether he does or does not *actually* contemplate this fact at the time depends on various contingent circumstances. These remarks about prehending are perfectly general; they would apply equally if we substituted for "red," which I have merely taken as an example, such words as "hot," "squeaky," etc.

I do not think it is worth while to spend much time over the question whether prehending could properly be described as a form of *knowing*. If we use "know" in such a way that what is known must be a *fact*, it is certain that prehending would not be a form of knowing. For, if we prehend anything, it is *particulars*. But the word "know" is often used as principal verb in a sentence in which the grammatical object is not a subordinate clause of the form "that *S* is *P*," but is the name or description of a particular. I should say, e.g., "I knew McTaggart, but I did not know Sidgwick." In many languages these two senses of "know" are expressed by different words, e.g., in German by *wissen* and *kennen*. There is therefore nothing in the usage of the word "know" to rule out the suggestion that prehending might properly be described as a form of "knowing," in the sense of "kenning" though not in that of "witting." A more substantial point is this. Even if prehending could not be properly described as a form of knowing, in either of these senses, it is conceived, as we have seen, to be most intimately bound up with the possibility of knowing certain facts about the particulars prehended.

I will now try to say what I think is involved in asserting that certain experiences are prehensions of particulars of some kind as having certain intrinsic qualities. (1) The phrase "being a prehension

SOME ELEMENTARY REFLEXIONS ON SENSE-PERCEPTION

of" is taken to denote a certain *relation* which holds between *experiences* of certain kinds and *particulars* of certain kinds." Examples of such experiences are visual, tactual, and auditory sensations. (2) The particulars in question are such that adjectives like "red," "hot," "squeaky," etc. (used in the *non-dispositional* sense in which they occur in such sentences as "This *looks* red to me," "This *feels* hot to me," and so on), can be predicated of them. (3) If an experience *e* is a prehension of a particular *x*, it is *ipso facto* a prehension of *x* as having a certain quality *c*; and it is logically impossible that *x* should be prehended as having *c* unless it does in fact have *c*. (4) Corresponding to any such experience *e* there is *one and only one* such particular *x*, of which *e* is a prehension. This may therefore be described as "*the* particular of which *e* is a prehension." (5) It is *logically* possible that a particular, which was in fact prehended on a certain occasion by a certain person as having a certain quality, should have existed and had that quality at that time even though it had not been prehended either by him or by anyone else. (6) It is *logically* possible that there should be particulars which are never prehended by anyone, but are of the same kinds as those which are actually prehended. Thus, e.g., it is logically possible that there should be particulars which are squeaky, in the sense in which that word is used in the sentence "That sounds squeaky," but which are not prehended by anyone. (7) It is *logically* possible that a particular, which was in fact prehended on a certain occasion by a certain person, should then have been prehended by *another* person, either instead of or in addition to the one who actually prehended it.

It should be noted that in all these statements I have been careful to use the phrase "*logically* possible," i.e., not internally inconsistent nor inconsistent with any *a priori* truth. If we were to substitute for this the phrase "*causally* possible," i.e., not inconsistent with any actual law of nature, the case would be altered. Take, e.g., the case of a person who holds that auditory sensations are prehensions. He could consistently hold that it is *causally* impossible for there to be a squeak which is not prehended by anyone. He could consistently hold that it is *causally* impossible that the very same squeak which is prehended by one person should be prehended by any other. What he could not consistently hold is that these suggestions are *logically* impossible. I think that we ought, nevertheless, to realize that such a person would be asserting an extremely queer proposition. So far as I can see, he would have to assert that the conditions which are *causally necessary* to produce a squeaky particular are always *causally sufficient* to evoke in a certain *one* person an experience which is a prehension of that particular as squeaky. And he would have to add that they are also causally sufficient to ensure the *non-occurrence* of such an experience in *any other* person. The following would be a

PHILOSOPHY

particular instance of this general proposition. It might be held that the occurrence of a certain event in a certain person's brain is causally necessary to *generate* a squeaky particular. It might be held that this event is also causally sufficient to evoke in that person's mind an experience which is a prehension of that particular as squeaky. And, finally, it might be held that the fact that this event happens in the brain of *that* person suffices to ensure that no such experience will be evoked in the mind of *any other* person. It should be noted that the evidence for the general proposition, or for this or any other specialization of it, would have to be empirical. It is not easy to see what adequate empirical evidence there could be.

It remains to consider, very briefly, the main grounds which might be alleged for doubting the prehensive account of visual, auditory, and tactual sensations, and therefore for doubting whether there is anything answering to the description of "sensa" or "sense-data."

(1) It seems just as plausible to hold that one is prehending something as coloured or as squeaky in the case of dreaming and imaging as in the case of normal waking sense-perception. Now on reflection it would appear to many persons to be, not merely causally impossible, but *absurd* to suppose that a visual or auditory image or the contents of a dream could exist except as contents of a certain one person's experience of imaging or dreaming on a certain one occasion. If that is true, it cannot be a correct account of the visual, tactual, or auditory experiences of imaging or dreaming to say that they consist in prehending certain particulars as red, as squeaky, as cold, and so on. But the only reason for accepting the prehensive account of the visual, tactual, and auditory experiences of normal waking life was that in them one seems to oneself to be prehending *something* as red or as squeaky or as cold, etc., even though reflection shows us that these "somethings" cannot be bodies or physical events. Now, whatever we may say of imaging, there is no doubt that the visual, tactual, and auditory experiences of dreaming are indistinguishable in their phenomenological character from those of normal waking life. If, then, the former cannot be regarded as prehensions of particulars of *any kind*, and the latter cannot be regarded as prehensions of *bodies* or of *physical events* (which is what they seem *prima facie* to be), there seems to be little ground for regarding the latter as prehensions of *anything*.

(2) The line of argument just stated is of course not demonstrative, even if one accepts its premisses. But many persons would be inclined to use the following more radical argument. They would say that it seems evident to them on reflexion that words like "red," "hot," "squeaky," etc., in their primary *non-dispositional* sense, can occur significantly only in such sentences as "This *looks* red to me," "This *feels* hot to me," "This *sounds* squeaky to me," and so

SOME ELEMENTARY REFLEXIONS ON SENSE-PERCEPTION

on. They would allege that whenever these words are used significantly in sentences such as "This *is* red," "This *is* hot," or "This *is* squeaky," they are used in a *dispositional* sense. Thus, it would be said, "This *is* red" is significant only if it is interpreted as "This *would* look red to any person of normal eyesight under certain standard conditions of vision." And the others are significant only if they are interpreted *mutatis mutandis* in a similar way. Now the prehensive analysis of visual, tactual, and auditory sensations presupposes that there are entities which *are* red or hot or squeaky, where these words are used in the non-dispositional sense in which they are used in such sentences as "This looks red to me" or "This feels hot to me" or "This sounds squeaky to me." For the prehensive analysis asserts that to have a visual or tactual or auditory sensation is to apprehend a particular which *has* a certain colour-quality or temperature—quality or sound-quality. Having such a sensation just consists in apprehending a certain particular as having a certain quality, e.g., redness, which it does in fact have. Thus, if the premiss of this argument be accepted, the prehensive account of visual, tactual, and auditory sensations cannot be correct, and there can be nothing answering to the description of "sensa" or "sense-data" given earlier in this paper.

(3) A final consideration which might be urged against the prehensive analysis is this. The only ground for holding that visual, tactual, and auditory experiences are prehensions of particulars of *some* kind is the fact that they inevitably seem to us to be such while we are having them. But they seem to us, while we are having them, to be prehensions of *bodies* and *physical events*. Now it has to be admitted that this is a delusion. Once that is admitted can we safely go on holding that they are prehensions of *anything*? Is it really credible that, if they were prehensions of particulars, they could be completely misleading as to the nature of those particulars?

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