

by his words. And under this head, by the expression "I believe . . ." as well as by the simple assertion.—What about my own case: how do I myself recognize my own disposition?—Here it will have been necessary for me to take notice of myself as others do, to listen to myself talking, to be able to draw conclusions from what I say!

My own relation to my words is wholly different from other people's.

That different development of the verb would have been possible, if only I could say "I seem to believe".

If I listened to the words of my mouth, I might say that someone else was speaking out of my mouth.

"Judging from what I say, *this* is what I believe." Now, it is possible to think out circumstances in which these words would make sense.

And then it would also be possible for someone to say "It is raining and I don't believe it", or "It seems to me that my ego believes this, but it isn't true." One would have to fill out the picture with behaviour indicating that two people were speaking through my mouth.

Even in the *hypothesis* the pattern is not what you think.

When you say "Suppose I believe . . ." you are presupposing the whole grammar of the word "to believe", the ordinary use, of which you are master.—You are not supposing some state of affairs which, so to speak, a picture presents unambiguously to you, so that you can tack on to this hypothetical use some assertive use other than the ordinary one.—You would not know at all what you were supposing here (i.e. what, for example, would follow from such a supposition), if you were not already familiar with the use of "believe".

Think of the expression "I say . . .", for example in "I say it will rain today", which simply comes to the same thing as the assertion "It will . . .". "He says it will . . ." means approximately "He believes it will . . .". "Suppose I say . . ." does *not* mean: Suppose it rains today.

Different concepts touch here and coincide over a stretch. But you need not think that all lines are *circles*.

Consider the misbegotten sentence "It may be raining, but it isn't".

And here one should be on one's guard against saying that "It may be raining" really means "I think it'll be raining." For why not the other way round, why should not the latter mean the former?

Don't regard a hesitant assertion as an assertion of hesitancy.

XI

Two uses of the word "see".

The one: "What do you see there?"—"I see *this*" (and then a description, a drawing, a copy). The other: "I see a likeness between these two faces"—let the man I tell this to be seeing the faces as clearly as do myself.

The importance of this is the difference of category between the two 'objects' of sight.

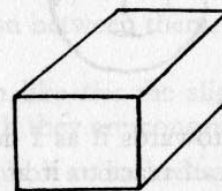
The one man might make an accurate drawing of the two faces and the other notice in the drawing the likeness which the former did not see.

I contemplate a face, and then suddenly notice its likeness to another. I *see* that it has not changed; and yet I see it differently. I call this experience "noticing an aspect".

Its *causes* are of interest to psychologists.

We are interested in the concept and its place among the concepts of experience.

You could imagine the illustration



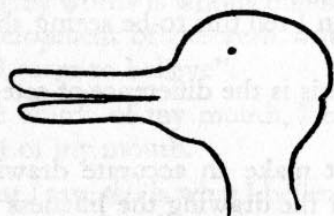
appearing in several places in a book, a text-book for instance. In the relevant text something different is in question every time: here a glass cube, there an inverted open box, there a wire frame of that shape, there three boards forming a solid angle. Each time the text supplies the interpretation of the illustration.

But we can also *see* the illustration now as one thing now as another.—So we interpret it, and *see* it as we *interpret* it.

Here perhaps we should like to reply: The description of what I got immediately, i.e. of the visual experience, by means of an interpretation—is an indirect description. "I see the figure as a box" means: I have a particular visual experience which I have found that I always have when I interpret the figure as a box or when I look at

a box. But if it meant this I ought to know it. I ought to be able to refer to the experience directly, and not only indirectly. (As I can speak of red without calling it the colour of blood.)

I shall call the following figure, derived from Jastrow¹, the duck-rabbit. It can be seen as a rabbit's head or as a duck's.



And I must distinguish between the 'continuous seeing' of an aspect and the 'dawning' of an aspect.

The picture might have been shewn me, and I never have seen anything but a rabbit in it.

Here it is useful to introduce the idea of a picture-object. For instance



would be a 'picture-face'.

In some respects I stand towards it as I do towards a human face. I can study its expression, can react to it as to the expression of the human face. A child can talk to picture-men or picture-animals, can treat them as it treats dolls.

I may, then, have seen the duck-rabbit simply as a picture-rabbit from the first. That is to say, if asked "What's that?" or "What do you see here?" I should have replied: "A picture-rabbit". If I had further been asked what that was, I should have explained by pointing to all sorts of pictures of rabbits, should perhaps have pointed to real rabbits, talked about their habits, or given an imitation of them.

I should not have answered the question "What do you see here?" by saying: "Now I am seeing it as a picture-rabbit". I should simply

¹ *Fact and Fable in Psychology.*

have described my perception: just as if I had said "I see a red circle over there."—

Nevertheless someone else could have said of me: "He is seeing the figure as a picture-rabbit."

It would have made as little sense for me to say "Now I am seeing it as . . ." as to say at the sight of a knife and fork "Now I am seeing this as a knife and fork". This expression would not be understood. Any more than: "Now it's a fork" or "It can be a fork too".

One doesn't 'take' what one knows as the cutlery at a meal; one eats, or aims at moving it.

If you say "Now it's a face for me", we can ask: "What change are you alluding to?"

I see two pictures, with the duck-rabbit surrounded by rabbits; one, by ducks in the other. I do not notice that they are the same. Does it *follow* from this that I *see* something different in the two cases? It gives us a reason for using this expression here.

"I saw it quite differently, I should never have recognized it. Now, that is an exclamation. And there is also a justification for it.

I should never have thought of superimposing the heads like this of making *this* comparison between them. For they suggest a different mode of comparison.

Nor has the head seen like *this* the slightest similarity to the head seen like *this*—although they are congruent.

I am shewn a picture-rabbit and asked what it is; I say "It's a rabbit". Not "Now it's a rabbit". I am reporting my perception.—I am shewn the duck-rabbit and asked what it is; I *may* say "It's a duck-rabbit". But I may also react to the question quite differently.—The answer that it is a duck-rabbit is again the report of a perception; the answer "Now it's a rabbit" is not. Had I replied "It's a rabbit", the ambiguity would have escaped me, and I should have been reporting my perception.

The change of aspect. "But surely you would say that the picture is altogether different now!"

But what is different: my impression? my point of view?—Can I say? I *describe* the alteration like a perception; quite as if the object had altered before my eyes.

"Now I am seeing *this*", I might say (pointing to another picture, for example). This has the form of a report of a new perception.

The expression of a change of aspect is the expression of a *new* perception and at the same time of the perception's being unchanged.

I suddenly see the solution of a puzzle-picture. Before, there were branches there; now there is a human shape. My visual impression has changed and now I recognize that it has not only shape and colour but also a quite particular 'organization'.—My visual impression has changed;—what was it like before and what is it like now?—If I represent it by means of an exact copy—and isn't that a good representation of it?—no change is shewn.

And above all do *not* say "After all my visual impression isn't the *drawing*; it is *this*—which I can't shew to anyone."—Of course it is not the drawing, but neither is it anything of the same category, which I carry within myself.

The concept of the 'inner picture' is misleading, for this concept uses the 'outer picture' as a model; and yet the uses of the words for these concepts are no more like one another than the uses of 'numeral' and 'number'. (And if one chose to call numbers 'ideal numerals', one might produce a similar confusion.)

If you put the 'organization' of a visual impression on a level with colours and shapes, you are proceeding from the idea of the visual impression as an inner object. Of course this makes this object into a chimera; a queerly shifting construction. For the similarity to a picture is now impaired.

If I know that the schematic cube has various aspects and I want to find out what someone else sees, I can get him to make a model of what he sees, in addition to a copy, or to point to such a model; even though *he* has no idea of my purpose in demanding two accounts.

But when we have a changing aspect the case is altered. Now the only possible expression of our experience is what before perhaps seemed, or even was, a useless specification when once we had the copy.

And this by itself wrecks the comparison of 'organization' with colour and shape in visual impressions.

If I saw the duck-rabbit as a rabbit, then I saw: these shapes and colours (I give them in detail)—and I saw besides something like this:

and here I point to a number of different pictures of rabbits.—It shews the difference between the concepts.

'Seeing as . . . ' is not part of perception. And for that reason it is like seeing and again not like.

I look at an animal and am asked: "What do you see?" I answer "A rabbit".—I see a landscape; suddenly a rabbit runs past. I exclaim "A rabbit!"

Both things, both the report and the exclamation, are expressions of perception and of visual experience. But the exclamation is so in a different sense from the report: it is forced from us.—It is related to experience as a cry is to pain.

But since it is the description of a perception, it can also be called expression of thought.—If you are looking at the object, you do not think of it; but if you are having the visual experience expressed by the exclamation, you are also *thinking* of what you see.

Hence the flashing of an aspect on us seems half visual experience and half thought.

Someone suddenly sees an appearance which he does not recognize (it may be a familiar object, but in an unusual position or lighting); lack of recognition perhaps lasts only a few seconds. Is it correct to say that he has a different visual experience from someone who knew the object at once?

For might not someone be able to describe an unfamiliar object that appeared before him just as *accurately* as I, to whom it is familiar? And isn't that the answer?—Of course it will not generally be so. And his description will run quite differently. (I say, for example, "The animal had long ears"—he: "There were two long appendages" and then he draws them.)

I meet someone whom I have not seen for years; I see him clearly but fail to know him. Suddenly I know him, I see the old face in the altered one. I believe that I should do a different portrait of him if I could paint.

Now, when I know my acquaintance in a crowd, perhaps by looking in his direction for quite a while,—is this a special sort of seeing? Is it a case of both seeing and thinking? or an amalgam of the two, as I should almost like to say?

The question is: *why* does one want to say this?

The very expression which is also a report of what is seen, is here a cry of recognition.

What is the criterion of the visual experience?—The criterion? What do you suppose?

The representation of 'what is seen'.

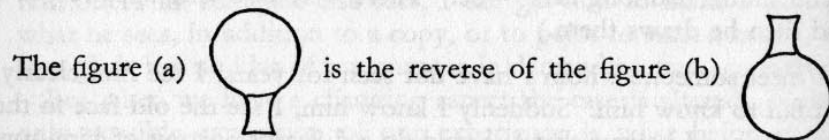
The concept of a representation of what is seen, like that of a copy, is very elastic, and so *together with it* is the concept of what is seen. The two are intimately connected. (Which is *not* to say that they are alike.)

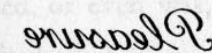
How does one tell that human beings *see* three-dimensionally?—I ask someone about the lie of the land (over there) of which he has a view. "Is it like *this*?" (I shew him with my hand)—"Yes."—"How do you know?"—"It's not misty, I see it quite clear."—He does not give reasons for the surmise. The only thing that is natural to us is to represent what we see three-dimensionally; special practice and training are needed for two-dimensional representation whether in drawing or in words. (The queerness of children's drawings.)

If someone sees a smile and does not know it for a smile, does not understand it as such, does he see it differently from someone who understands it?—He mimics it differently, for instance.

Hold the drawing of a face upside down and you can't recognize the expression of the face. Perhaps you can see that it is smiling, but not exactly what *kind* of smile it is. You cannot imitate the smile or describe it more exactly.

And yet the picture which you have turned round may be a most exact representation of a person's face.



As (c)  is the reverse of (d) *Pleasure*

But—I should like to say—there is a different difference between my impressions of (c) and (d) and between those of (a) and (b). (d), for example, looks neater than (c). (Compare a remark of Lewis Carroll's.) (d) is easy, (c) hard to copy.

Imagine the duck-rabbit hidden in a tangle of lines. Now I suddenly notice it in the picture, and notice it simply as the head of a rabbit. At some later time I look at the same picture and notice the same figure, but see it as the duck, without necessarily realizing that it was the same figure both times.—If I later see the aspect change—can I say that the duck and rabbit aspects are now seen quite differently from when I recognized them separately in the tangle of lines? No.

But the change produces a surprise not produced by the recognition.

If you search in a figure (1) for another figure (2), and then find it, you see (1) in a new way. Not only can you give a new kind of description of it, but noticing the second figure was a new visual experience.

But you would not necessarily want to say "Figure (1) looks quite different now; it isn't even in the least like the figure I saw before, though they are congruent!"

There are here hugely many interrelated phenomena and possible concepts.

Then is the copy of the figure an *incomplete* description of my visual experience? No.—But the circumstances decide whether, and what, more detailed specifications are necessary.—It *may* be an incomplete description; if there is still something to ask.

Of course we can say: There are certain things which fall equally under the concept 'picture-rabbit' and under the concept 'picture-duck'. And a picture, a drawing, is such a thing.—But the *impression* is not simultaneously of a picture-duck and a picture-rabbit.

"What I really *see* must surely be what is produced in me by the influence of the object"—Then what is produced in me is a sort of copy, something that in its turn can be looked at, can be before one; almost something like a *materialization*.

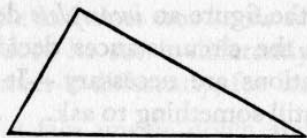
And this materialization is something spatial and it must be possible to describe it in purely spatial terms. For instance (if it is a face) it can smile; the concept of friendliness, however, has no place in an account of it, but is *foreign* to such an account (even though it may subserve it).

If you ask me what I saw, perhaps I shall be able to make a sketch which shews you; but I shall mostly have no recollection of the way my glance shifted in looking at it.

The concept of 'seeing' makes a tangled impression. Well, it is tangled.—I look at the landscape, my gaze ranges over it, I see all sorts of distinct and indistinct movement; *this* impresses itself sharply on me, *that* is quite hazy. After all, how completely ragged what we see can appear! And now look at all that can be meant by "description of what is seen".—But this just is what is called description of what is seen. There is not *one genuine* proper case of such description—the rest being just vague, something which awaits clarification, or which must just be swept aside as rubbish.

Here we are in enormous danger of wanting to make fine distinctions.—It is the same when one tries to define the concept of a material object in terms of 'what is really seen'.—What we have rather to do is to *accept* the everyday language-game, and to note *false* accounts of the matter *as* false. The primitive language-game which children are taught needs no justification; attempts at justification need to be rejected.

Take as an example the aspects of a triangle. This triangle



can be seen as a triangular hole, as a solid, as a geometrical drawing; as standing on its base, as hanging from its apex; as a mountain, as a wedge, as an arrow or pointer, as an overturned object which is meant to stand on the shorter side of the right angle, as a half parallelogram, and as various other things.

"You can think now of *this* now of *this* as you look at it, can regard it now as *this* now as *this*, and then you will see it now *this* way, now *this*."—*What way?* There *is* no further qualification.

But how is it possible to *see* an object according to an *interpretation*?—The question represents it as a queer fact; as if something were being forced into a form it did not really fit. But no squeezing, no forcing took place here.

When it looks as if there were no room for such a form between other ones you have to look for it in another dimension. If there is no room here, there *is* room in another dimension.

(It is in this sense too that there is no room for imaginary numbers in the continuum of real numbers. But what this means is: the application of the concept of imaginary numbers is less like that of real numbers than appears from the look of the *calculations*. It is necessary to get down to the application, and then the concept finds a different place, one which, so to speak, one never dreamed of.)

How would the following account do: "What I can see something *as*, is what it can be a picture of"?

What this means is: the aspects in a change of aspects are those ones which the figure might sometimes have *permanently* in a picture.

A triangle can really be *standing up* in one picture, be hanging in another, and can in a third be something that has fallen over.—That is, I who am looking at it say, not "It may also be something that has fallen over", but "That glass has fallen over and is lying there in fragments". This is how we react to the picture.

Could I say what a picture must be like to produce this effect? No. There are, for example, styles of painting which do not convey anything to me in this immediate way, but do to other people. I think custom and upbringing have a hand in this.

What does it mean to say that I '*see the sphere floating in the air*' in a picture?

Is it enough that this description is the first to hand, is the matter-of-course one? No, for it might be so for various reasons. This might, for instance, simply be the conventional description.

What is the expression of my not merely understanding the picture in this way, for instance, (knowing what it is *supposed* to be), but *seeing* it in this way?—It is expressed by: "The sphere seems to float", "You see it floating"; or again, in a special tone of voice, "It floats!"

This, then, is the expression of taking something for something. But not being used as such.

Here we are not asking ourselves what are the causes and what produces this impression in a particular case.

And *is* it a special impression?—"Surely I see something *different* when I see the sphere floating from when I merely see it lying there."—This really means: This expression is justified!—(For taken literally it is no more than a repetition.)

(And yet my impression is not that of a real floating sphere either. There are various forms of 'three-dimensional seeing'. The three-dimensional character of a photograph and the three-dimensional character of what we see through a stereoscope.)

"And is it really a different impression?"—In order to answer this I should like to ask myself whether there is really something different there in me. But how can I find out?—I *describe* what I am seeing differently.

Certain drawings are always seen as flat figures, and others sometimes, or always, three-dimensionally.

Here one would now like to say: the visual impression of what is seen three-dimensionally is three-dimensional; with the schematic cube, for instance, it is a cube. (For the description of the impression is the description of a cube.)

And then it seems queer that with some drawings our impression should be a flat thing, and with some a three-dimensional thing. One asks oneself "Where is this going to end?"

When I see the picture of a galloping horse—do I merely *know* that this is the kind of movement meant? Is it superstition to think I *see* the horse galloping in the picture?—And does my visual impression gallop too?

What does anyone tell me by saying "Now I see it as"? What consequences has this information? What can I do with it?

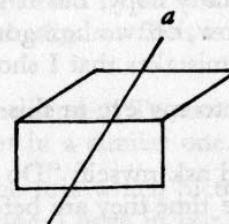
People often associate colours with vowels. Someone might find that a vowel changed its colour when it was repeated over and over again. He finds *a* 'now blue—now red', for instance.

The expression "Now I am seeing it as . . ." might have no more significance for us than: "Now I find *a* red".

(Linked with physiological observations, even this change might acquire importance for us.)

Here it occurs to me that in conversation on aesthetic matters we use the words: "You have to see it like *this*, this is how it is meant"; "When you see it like *this*, you see where it goes wrong"; "You have to hear this bar as an introduction"; "You must hear it in this key"; "You must phrase it like *this*" (which can refer to hearing as well as to playing).

This figure



is supposed to represent a convex step and to be used in some kind of topological demonstration. For this purpose we draw the straight line *a* through the geometric centres of the two surfaces.—Now if anyone's three-dimensional impression of the figure were never more than momentary, and even so were now concave, now convex, that might make it difficult for him to follow our demonstration. And if he finds that the flat aspect alternates with a three-dimensional one, that is just as if I were to shew him completely different objects in the course of the demonstration.

What does it mean for me to look at a drawing in descriptive geometry and say: "I know that this line appears again here, but I can't *see* it like that"? Does it simply mean a lack of familiarity in operating with the drawing; that I don't 'know my way about' too well?—This familiarity is certainly one of our criteria. What tells us that someone is seeing the drawing three-dimensionally is a certain kind of 'knowing one's way about'. Certain gestures, for instance, which indicate the three-dimensional relations: fine shades of behaviour.

I see that an animal in a picture is transfixed by an arrow. It has struck it in the throat and sticks out at the back of the neck. Let the picture be a silhouette.—Do you *see* the arrow—or do you merely *know* that these two bits are supposed to represent part of an arrow?

(Compare Köhler's figure of the interpenetrating hexagons.)

"But this isn't *seeing*!"—"But this is seeing!"—It must be possible to give both remarks a conceptual justification.

But this is seeing! *In what sense* is it seeing?

"The phenomenon is at first surprising, but a physiological explanation of it will certainly be found."—

Our problem is not a causal but a conceptual one.

If the picture of the transfixed beast or of the interpenetrating hexagons were shewn to me just for a moment and then I had to describe it, *that* would be my description; if I had to draw it I should

certainly produce a very faulty copy, but it would shew some sort of animal transfixed by an arrow, or two hexagons interpenetrating. That is to say: there are certain mistakes that I should *not* make.

The first thing to jump to my eye in this picture is: there are two hexagons.

Now I look at them and ask myself: "Do I really see them *as* hexagons?"—and for the whole time they are before my eyes? (Assuming that they have not changed their aspect in that time.)—And I should like to reply: "I am not thinking of them as hexagons the whole time."

Someone tells me: "I saw it at once as two hexagons. And that's the *whole* of *what* I saw." But how do I understand this? I think he would have given this description at once in answer to the question "What are you seeing?", nor would he have treated it as one among several possibilities. In this his description is like the answer "A face" on being shewn the figure



The best description I can give of what was shewn me for a moment is *this*:

"The impression was that of a rearing animal." So a perfectly definite description came out.—Was it *seeing*, or was it a thought?

Do not try to analyse your own inner experience.

Of course I might also have seen the picture first as something different, and then have said to myself "Oh, it's two hexagons!" So the aspect would have altered. And does this prove that I in fact *saw* it as something definite?

"Is it a *genuine* visual experience?" The question is: in what sense is it one?

Here it is *difficult* to see that what is at issue is the *fixing* of concepts. A *concept* forces itself on one. (This is what you must not forget.)

For when should I call it a mere case of knowing, not seeing?—Perhaps when someone treats the picture as a working drawing, *reads* it like a blueprint. (Fine shades of behaviour.—Why are they *important*? They have important consequences.)

"To me it is an animal pierced by an arrow." That is what I treat it as; this is my *attitude* to the figure. This is one meaning in calling it a case of 'seeing'.

But can I say in the same sense: "To me these are two hexagons"? Not in the same sense, but in a similar one.

You need to think of the role which pictures such as paintings (as opposed to working drawings) have in our lives. This role is by no means a uniform one.

A comparison: texts are sometimes hung on the wall. But not theorems of mechanics. (Our relation to these two things.) *but yes, Auzzle*

If you see the drawing as such-and-such an animal, what I expect from you will be pretty different from what I expect when you merely know what it is meant to be.

Perhaps the following expression would have been better: we *regard* the photograph, the picture on our wall, as the object itself (the man, landscape, and so on) depicted there.

This need not have been so. We could easily imagine people who did not have this relation to such pictures. Who, for example, would be repelled by photographs, because a face without colour and even perhaps a face reduced in scale struck them as inhuman.

I say: "We regard a portrait as a human being,"—but when do we do so, and for how long? *Always*, if we see it at all (and do not, say, see it as something else)?

I might say yes to this, and that would determine the concept of regarding-as.—The question is whether yet another concept, related to this one, is also of importance to us: that, namely, of a seeing-as which only takes place while I am actually concerning myself with the picture as the object depicted.

I might say: a picture does not always *live* for me while I am seeing it. "Her picture smiles down on me from the wall." It need not always do so, whenever my glance lights on it.

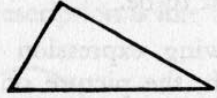

The duck-rabbit. One asks oneself: how can the eye—this *dot*—be looking in a direction?—"See, it is *looking*!" (And one 'looks' oneself as one says this.) But one does not say and do this the whole time one is looking at the picture. And now, what is this "See, it's looking!"—does it express a sensation?

(In giving all these examples I am not aiming at some kind of completeness, some classification of psychological concepts. They are only meant to enable the reader to shift for himself when he encounters conceptual difficulties.)

"Now I see it as a" goes with "I am trying to see it as a" or "I can't see it as a . . . yet". But I cannot try to see a conventional picture of a lion *as* a lion, any more than an F as that letter. (Though I may well try to see it as a gallows, for example.)

Do not ask yourself "How does it work with *me*?"—Ask "What do I know about someone else?"

How does one play the game: "It could be *this* too"? (What a figure could also be—which is what it can be seen as—is not simply another

figure. If someone said "I see  as ", he might still be meaning very different things.)

Here is a game played by children: they say that a chest, for example, is a house; and thereupon it is interpreted as a house in every detail. A piece of fancy is worked into it.

And does the child now *see* the chest as a house?

"He quite forgets that it is a chest; for him it actually is a house." (There are definite tokens of this.) Then would it not also be correct to say he *sees* it as a house?

And if you knew how to play this game, and, given a particular situation, you exclaimed with special expression "Now it's a house!"—you would be giving expression to the dawning of an aspect.

If I heard someone talking about the duck-rabbit, and *now* he spoke in a certain way about the special expression of the rabbit's face I should say, now he's seeing the picture as a rabbit.

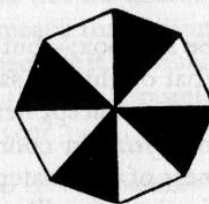
But the expression in one's voice and gestures is the same as if the object had altered and had ended by *becoming* this or that.

I have a theme played to me several times and each time in a slower tempo. In the end I say "Now it's right", or "Now at last it's a march", "Now at last it's a dance".—The same tone of voice expresses the dawning of an aspect.

'Fine shades of behaviour.'—When my understanding of a theme is expressed by my whistling it with the correct expression, this is an example of such fine shades.

The aspects of the triangle: it is as if an *image* came into contact, and for a time remained in contact, with the visual impression.

In this, however, these aspects differ from the concave and convex aspects of the step (for example). And also from the aspects of the figure



(which I shall call a "double cross") as a white cross on a black ground and as a black cross on a white ground.

You must remember that the descriptions of the alternating aspects are of a different kind in each case.

(The temptation to say "I see it like *this*", pointing to the same thing for "it" and "this".) Always get rid of the idea of the private object in this way: assume that it constantly changes, but that you do not notice the change because your memory constantly deceives you.

Those two aspects of the double cross (I shall call them the aspects A) might be reported simply by pointing alternately to an isolated white and an isolated black cross.

One could quite well imagine this as a primitive reaction in a child even before it could talk.

(Thus in reporting the aspects A we point to a part of the double cross.—The duck and rabbit aspects could not be described in an analogous way.)

You only 'see the duck and rabbit aspects' if you are already conversant with the shapes of those two animals. There is no analogous condition for seeing the aspects A.

It is possible to take the duck-rabbit simply for the picture of a rabbit, the double cross simply for the picture of a black cross, but not to take the bare triangular figure for the picture of an object that has fallen over. To see this aspect of the triangle demands *imagination*.

The aspects A are not essentially three-dimensional; a black cross on a white ground is not essentially a cross with a white surface in the background. You could teach someone the idea of the black cross on a ground of different colour without shewing him anything but crosses painted on sheets of paper. Here the 'background' is simply the surrounding of the cross.

The aspects A are not connected with the possibility of illusion in the same way as are the three-dimensional aspects of the drawing of a cube or step.

I can see the schematic cube as a box;—but can I also see it now as a paper, now as a tin, box?—What ought I to say, if someone assured me *he* could?—I can set a limit to the concept here.

Yet think of the expression "*felt*" in connexion with looking at a picture. ("One feels the softness of that material.") (*Knowing* in dreams. "And I *knew* that . . . was in the room.")

How does one teach a child (say in arithmetic) "Now take *these* things together!" or "Now *these* go together"? Clearly "taking together" and "going together" must originally have had another meaning for him than that of *seeing* in this way or that.—And this is a remark about concepts, not about teaching methods.

One *kind* of aspect might be called 'aspects of organization'. When the aspect changes parts of the picture go together which before did not.

In the triangle I can see now *this* as apex, *that* as base—now *this* as apex, *that* as base.—Clearly the words "Now I am seeing *this* as the apex" cannot so far mean anything to a learner who has only just met the concepts of apex, base, and so on.—But I do not mean this as an empirical proposition.

"Now he's seeing it like *this*", "now like *that*" would only be said of someone *capable* of making certain applications of the figure quite freely.

The substratum of this experience is the mastery of a technique.

But how queer for this to be the logical condition of someone's having such-and-such an *experience*! After all, you don't say that one only 'has toothache' if one is capable of doing such-and-such.—From this it follows that we cannot be dealing with the same concept of experience here. It is a different though related concept.

It is only if someone *can do*, has learnt, is master of, such-and-such, that it makes sense to say he has had *this* experience.

And if this sounds crazy, you need to reflect that the *concept* of seeing is modified here. (A similar consideration is often necessary to get rid of a feeling of dizziness in mathematics.)

We talk, we utter words, and only *later* get a picture of their life.

For how could I see that this posture was hesitant before I knew that it was a posture and not the anatomy of the animal?

But surely that only means that I cannot use *this* concept to describe the object of sight, just because it has *more* than purely visual reference?—Might I not for all that have a purely visual concept of a hesitant posture, or of a timid face?

Such a concept would be comparable with 'major' and 'minor' which certainly have emotional value, but can also be used purely to describe a perceived structure.

The epithet "sad", as applied for example to the outline face, characterizes the grouping of lines in a circle. Applied to a human being it has a different (though related) meaning. (But this does *not* mean that a sad expression is *like* the feeling of sadness!)

Think of this too: I can only see, not hear, red and green,—but sadness I can hear as much as I can see it.

Think of the expression "I heard a plaintive melody". And now the question is: "Does he *hear* the plaint?"

And if I reply: "No, he doesn't hear it, he merely has a sense of it"—where does that get us? One cannot mention a sense-organ for this 'sense'.

Some would like to reply here: "Of course I hear it!"—Others: "I don't really *hear* it."

We can, however, establish differences of concept here.

We react to the visual impression differently from someone who does not recognize it as timid (in the *full* sense of the word).—But I do *not* want to say here that we feel this reaction in our muscles and joints and that this is the 'sensing'.—No, what we have here is a modified concept of *sensation*.

One might say of someone that he was blind to the *expression* of a face. Would his eyesight on that account be defective?

This is, of course, not simply a question for physiology. Here the physiological is a symbol of the logical.

If you feel the seriousness of a tune, what are you perceiving?—Nothing that could be conveyed by reproducing what you heard.

I can imagine some arbitrary cipher—this, for instance:

J—

to be a strictly correct letter of some foreign alphabet. Or again, to be a faultily written one, and faulty in this way or that: for example, it might be slap-dash, or typical childish awkwardness, or like the flourishes in a legal document. It could deviate from the correctly written letter in a variety of ways.—And I can see it in various aspects according to the fiction I surround it with. And here there is a close kinship with ‘experiencing the meaning of a word’.

I should like to say that what dawns here lasts only as long as I am occupied with the object in a particular way. (“See, it’s looking!”)—“I should like to say”—and *is* it so?—Ask yourself “For how long am I struck by a thing?”—For how long do I find it *new*?

The aspect presents a physiognomy which then passes away. It is almost as if there were a face there which at first I *imitate*, and then accept without imitating it.—And isn’t this really explanation enough?—But isn’t it too much?

“I observed the likeness between him and his father for a few minutes, and then no longer.”—One might say this if his face were changing and only looked like his father’s for a short time. But it can also mean that after a few minutes I stopped being struck by the likeness.

“After the likeness had struck you, how long were you aware of it?” What kind of answer might one give to this question?—“I soon stopped thinking about it”, or “It struck me again from time to time”, or “I several times had the thought, how like they are!”, or “I marvelled at the likeness for at least a minute”—That is the sort of answer you would get.

I should like to put the question “Am I *aware* of the spatial character, the depth of an object (of this cupboard for instance), the *whole* time

I am seeing it?” Do I, so to speak, *feel* it the whole time?—But put the question in the third person.—When would you say of someone that he *was* aware of it the whole time, and when the opposite?—Of course, one could ask him,—but how did he learn how to answer such a question?—He knows what it means “to feel pain continuously”. But that will only confuse him here (as it confuses me).

If he now says he is continuously aware of the depth—do I believe him? And if he says he is aware of it only occasionally (when talking about it, perhaps)—do I believe *that*? These answers will strike me as resting on a false foundation.—It will be different if he says that the object sometimes strikes him as flat, sometimes as three-dimensional.

Someone tells me: “I looked at the flower, but was thinking of something else and was not conscious of its colour.” Do I understand this?—I can imagine a significant context, say his going on: “Then I suddenly *saw* it, and realized it was the one which”.

Or again: “If I had turned away then, I could not have said what colour it was.”

“He looked at it without seeing it.”—There is such a thing. But what is the criterion for it?—Well, there is a variety of cases here.

“Just now I looked at the shape rather than at the colour.” Do not let such phrases confuse you. Above all, don’t wonder “What can be going on in the eyes or brain?”

The likeness makes a striking impression on me; then the impression fades.

It only struck me for a few minutes, and then no longer did.

What happened here?—What can I recall? My own facial expression comes to mind; I could reproduce it. If someone who knew me had seen my face he would have said “Something about his face struck you just now”.—There further occurs to me what I say on such an occasion, out loud or to myself. And that is all.—And is this what being struck is? No. These are the phenomena of being struck; but they *are* ‘what happens’.

Is being struck looking plus thinking? No. Many of our concepts *cross* here.

(‘Thinking’ and ‘inward speech’—I do not say ‘*to* oneself’—are different concepts.)

The colour of the visual impression corresponds to the colour of the object (this blotting paper looks pink to me, and is pink)—the shape of the visual impression to the shape of the object (it looks rectangular to me, and is rectangular)—but what I perceive in the dawning of an aspect is not a property of the object, but an internal relation between it and other objects.

It is almost as if 'seeing the sign in this context' were an echo of a thought.

"The echo of a thought in sight"—one would like to say.

Imagine a physiological explanation of the experience. Let it be this: When we look at the figure, our eyes scan it repeatedly, always following a particular path. The path corresponds to a particular pattern of oscillation of the eyeballs in the act of looking. It is possible to jump from one such pattern to another and for the two to alternate. (Aspects A.) Certain patterns of movement are physiologically impossible; hence, for example, I cannot see the schematic cube as two interpenetrating prisms. And so on. Let this be the explanation.—"Yes, that shews it is a kind of *seeing*."—You have now introduced a new, a physiological, criterion for seeing. And this can screen the old problem from view, but not solve it.—The purpose of this paragraph however, was to bring before our view what happens when a physiological explanation is offered. The psychological concept hangs out of reach of this explanation. And this makes the nature of the problem clearer.

Do I really see something different each time, or do I only interpret what I see in a different way? I am inclined to say the former. But why?—To interpret is to think, to do something; seeing is a state.

Now it is easy to recognize cases in which we are *interpreting*. When we interpret we form hypotheses, which may prove false.—"I am seeing this figure as a" can be verified as little as (or in the same sense as) "I am seeing bright red". So there is a similarity in the use of "seeing" in the two contexts. Only do not think you knew in advance what the "*state* of seeing" means here! Let the use *teach* you the meaning.

We find certain things about seeing puzzling, because we do not find the whole business of seeing puzzling enough.

If you look at a photograph of people, houses and trees, you do not feel the lack of the third dimension in it. We should not find it easy to describe a photograph as a collection of colour-patches on a flat surface; but what we see in a stereoscope looks three-dimensional in a different way again.

(It is anything but a matter of course that we see 'three-dimensionally' with two eyes. If the two visual images are amalgamated, we might expect a blurred one as a result.)

The concept of an aspect is akin to the concept of an image. In other words: the concept 'I am now seeing it as . . . ' is akin to 'I am now having *this* image'.

Doesn't it take imagination to hear something as a variation on a particular theme? And yet one is perceiving something in so hearing it.

"Imagine this changed like this, and you have this other thing." One can use imagining in the course of proving something.

Seeing an aspect and imagining are subject to the will. There is such an order as "Imagine *this*", and also: "Now see the figure like *this*"; but not: "Now see this leaf green".

The question now arises: Could there be human beings lacking in the capacity to see something *as something*—and what would that be like? What sort of consequences would it have?—Would this defect be comparable to colour-blindness or to not having absolute pitch?—We will call it "aspect-blindness"—and will next consider what might be meant by this. (A conceptual investigation.) The aspect-blind man is supposed not to see the aspects A change. But is he also supposed not to recognize that the double cross contains both a black and a white cross? So if told "Shew me figures containing a black cross among these examples" will he be unable to manage it? No, he should be able to do that; but he will not be supposed to say: "Now it's a black cross on a white ground!"

Is he supposed to be blind to the similarity between two faces?—And so also to their identity or approximate identity? I do not want to settle this. (He ought to be able to execute such orders as "Bring me something that looks like *this*.")

Ought he to be unable to see the schematic cube as a cube?—I would not follow from that that he could not recognize it as a representation (a working drawing for instance) of a cube. But for him it