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REALISM AND THE LANGUAGE DEPENDENCE OF THE EXTERNAL WORLD.

A Thesis presented in partial fulfilment of the requirements for the degree of Master of Arts in Philosophy at Massey University.

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ABSTRACT.

This Thesis falls loosely into 2 Parts.

In Part 1 (Chs. 1-4) a certain version of the view generally called "Realism" is put forward. This Realism is a view that can take either of two forms, one weak or soft, the other hard or strong. The first form states that there is an external world, which we experience and which influences language. The second form states that there is an external world, which is mirrored in consciousness and which is also mirrored in language. That is, the contents of consciousness and the contents of language correspond exactly to an absolute external world. This second stronger version (which I call "Metaphysical Realism") is refuted in Chapters 2-4.

Refuting it, however, still leaves us with the first view intact. In the rest of the thesis I argue that this first weaker version of Realism is essentially correct. This is because:

- a. Objects do indeed exist. (Ch. 5)
- b. At least part of what we do when we say we see X is refer to a genuine experience of X. (Chs 6 & 7)
- c. In a certain sense the world is known non-linguistically. (Ch. 8)

The final chapter, Ch. 9, is designed to show how language

influences what might loosely be called the "External World". Hence we end up with a genuine "Realism" which is yet in a sense "language dependent", for this "real world" is formed by language which then reports on the world so formed.

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Chapter 1.A "METAPHYSICAL REALISTS" STORY.

Most of us I suppose like to think of ourselves as realists; and if we don't, there are plenty of people only too prepared to tell us we ought to be. For instance, such people advise us to face up to "the hard facts of reality" and not to "go chasing pots of gold at the end of the rainbow". And this indoctrination starts right from our childhood. Consider the following children's tale.

"Once upon a time a fast talking tailor turned up at the court of a nameless kingdom and told the King of that nameless kingdom that he, the tailor, would make the King the finest suit of new clothes that anyone had ever seen. From his bag the tailor took what he said were bolts of cloth and held them up, one by one, for the King to see. As he did so the tailor enthused over the vivacity of their colour, the subtlety of their pattern and the delicacy of their weave. The King, not wishing to seem vulgar before this eloquent and sophisticated tailor, agreed that the cloth was quite peerless and ordered a new suit of clothes straight away.

The tailor set to work at once. For many days he snipped at the invisible cloth with his scissors. Then, for many more days, he sewed the invisible cloth with invisible thread. Finally the tailor announced that he was finished. The King donned his new suit and expressed his satisfaction. He paraded before a wildly enthusiastic court. The men were green with envy, the women were tipsy with admiration. They were very sophisticated people these courtiers.

The following day however there was a royal procession. The King donned his new suit of clothes and marched forth, surrounded by his knights and pages, in great pomp. The people, forewarned by the courtiers not to display their stupidity and ignorance by failing to see the intricacy and beauty of the King's new attire, applauded wildly. Then, quite suddenly, the King came alongside two street urchins who first tittered and then laughed in the brazen self confident way that common people often do.

"The silly old fart is starkers!" one of them shouted. The other blew the King a raspberry and they both slipped off into a side alley laughing derisively as they went.

At first there was a stunned silence, then there was a giggle, then there was laughter and finally there was a gale of laughter as first part of the crowd, then the whole crowd and finally the court itself laughed at their pretentious and duped monarch. In the cold light of those urchins eyes the mighty verbal illusion, born and perpetuated by the state had dissolved. No one can present a false picture of reality and get away with it forever."

This surely is an object lesson to us all, a lesson that, try as we might, we cannot change the hard face of reality: for if we do, we too are liable to be made fools of by some frank and odious urchin. We must report what we see for fear of ridicule and what we see cannot be altered by mere linguistic trickery.

But this, after all, is a rather nebulous moral. Surely, we are inclined to think, there must be a more precise way of tying down what the truth is and how to tell it. Perhaps we ought to say something like this. **FIRSTLY:** there are objects absolute and independent of us. **SECONDLY:** we see these objects exactly as they are for they are mirrored in our consciousness. It is this mirroring that allows us to know the world. **THIRDLY:** our language too mirrors the world; it is that that guarantees its truth. Of course it follows that **FOURTHLY:** we know the world first through perception and then put words to what we know. We must see the world before we can mirror it in language. This view is the view of a "Metaphysical Realist", a man who holds a "copy theory" of truth and knowledge. Even at a glance it seems persuasive. In its detail however it seems even more persuasive.

\* \* \* \* \*

Why Objects exist.

Why do we believe in bedrock objects? There are, of course, many reasons for this belief and I intend only to deal with the most crucial. **FIRSTLY;** man is a vulnerable creature and a creature with certain nutritive needs. In order to feed himself, and therefore survive, he must have an awareness of certain things as being food. Food may be absent or present within man's immediate environment. Food and nutrition may be imagined: but it goes without saying, a man who attempts to live on imagined food will quickly die. Thus food appears an external factor to man; something alien to himself, a physical object in a physical world. And not only does man need objects of a certain sort to sustain him; other objects are a threat to him. He may bump into trees, fall over precipices, be drowned by water, buried by landslides or himself become food for other living things. Any man who neglects the dangers of all these things will live a short life full of physical suffering. In fact, in a sense, it is impossible to neglect these things. They force themselves upon our attention: try as we may we cannot, for example, prevent water from having the ability to drown us or falls from breaking our bones. Objects and their dangers are part of our facticity. We are part of the life of the world and the world is the arena in which our drama is enacted and an arena is itself an object. So, there are biological reasons for believing in objects.

**SECONDLY:** we are all aware that sometimes our senses fail to work as they should. We know that sometimes we do not hear the lion

coming through the undergrowth or that we do not see the loose stone that will throw us over the precipice. We know that if we close our eyes we do not see the tree outside our front door; but we can still feel it if we approach it, we can still smell it in the air and hear the wind blowing through its branches. Failure of any one sense does not involve the simultaneous failure of all other senses. If I stop seeing the tree the tree is still just as scented and just as hard. Indeed, if all our senses stop, if we cannot see, hear, smell or taste the tree, we believe we will still feel it. (That is why "solidity" was included in Locke's Primary Qualities.) So objects go on existing and being either lethal or nutritious or both, even when virtually all our five senses fail. (Indeed, even if we lost our sense of feel, we should still expect to be eaten by the hungry lion.)

THIRDLY: we all know that sometimes we get things wrong; especially when we eat strange mushrooms. Now and again we see hippos crossing the road when there are just no hippos there. There aren't any footprints left, no hippo droppings remain and there are simply no hippos in New Zealand anyway. Surely the easiest way to account for these illusions is just to say there was no object there: nothing nutritious or lethal, heavy or light, grey or brown. As before, we come to believe there are objects; because there are phenomena outside our conscious control which affect us for good or ill. In short, things in the world are "given" to us: and we must "passively" accept what is given. The world is composed of "that which is experienced" and "that which we experience".

\* \* \* \* \*

Seeing as Mirroring.

This seems especially so in the case of vision. Most of us I suppose believe that sight is our primary sense. But exactly how sight works has always been a difficult matter; especially once there are two orders, objects and perceptions of objects, or "that which is experienced" and "that which we experience". One of the earliest attempted solutions to this problem was that of Empedocles, repeated in Plato's Timaeus.

And of the organs they first contrived of the eyes to give light, and the principle according to which they were inserted was as follows. So much of fire as would not burn, but gave a gentle light, they formed into a substance akin to the light of everyday life, and the pure fire which is within us and related thereto they made to flow through the eyes in a stream smooth and dense, compressing the whole eye and especially the centre part, so that it kept out everything of a coarser nature and allowed to pass only this pure element. When the light of day surrounds the stream of vision, then like falls upon like, and they coalesce, and one body is formed by natural affinity in the line of vision, wherever the light that falls from within meets with an external object. And the whole stream of vision, being similarly affected in virtue of the similarity diffuses the motions of what it touches or what touches it over the whole body, until they reach the soul, causing that perception which we call sight. (Timaeus 45, b-d. Trans. B. Jowett.)

This seems a messy picture. Both object and viewer shoot forth tentacles of light which co-mingle and the vibrations, emitted by the object, pass down the tentacle emitted by the eye and enlighten the soul as to the nature of the object seen. Perhaps it was this very messiness which led later generations to ignore this picture.

Perhaps it was simply the ingenuity of Arab artisans and alchemists, whose optical devices suggested a better analogy, which led to the demise of the Platonic view. But, whatever the reason, a new, more PASSIVE view of seeing came to be adopted; a view in which a passively receptive body mirrored "that which was seen".

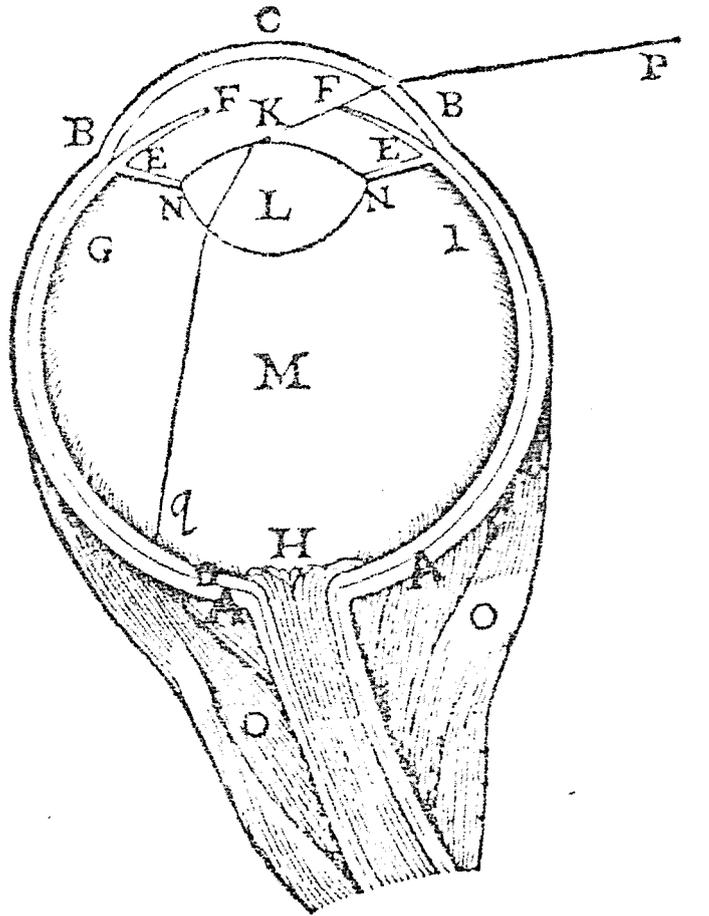
The first known exponent of the new analogy was an 11th century Arab scholar, known as Alhazen, who devised the first "camera obscura". This exciting toy became more and more sophisticated over the centuries and became especially beguiling once the pinhole in the front of the device was replaced by a lens. Danielo Barbaro gives the following description of a camera obscura in his "Practica della Perspectiva." (1568-69).

Close all the shutters and doors until no light enters the camera except through the lens, and opposite hold a sheet of paper, which you move forward and backward until the scene appears in the sharpest detail. There on the paper you will see the whole as it really is, with its distances, its colours and shadows and motion, the clouds, the water twinkling, the birds flying. By holding the paper steady you can trace the whole perspective with a pen, shade it and delicately colour it from nature.

And this seemed, and still does seem to many, the perfect analogy of vision. Instead of the image being reflected on the back wall of the camera obscura, or the moving paper within it, as above, the image was simply reflected on the back of the eye itself. The world was mirrored in living flesh. But, not only did the back of the eye become a mirror, the front portions of the eye came to be seen as lenses, to explain, not only how so large a thing as the world could be mirrored in so small a place as the eye, but also, to ensure that

the world was represented faithfully at the back of the eye.

And it is the eye as a truly mirroring optical device that French philosopher and scientist, Rene Descartes, describes so brilliantly in his Treatise of Man.



(Fig. 9. Treatise of Man. pg 50)

In the first membrane, the part BCB (the cornea) is transparent, and a little more arched than the rest; and the refraction of rays entering it occurs towards the perpendicular. In the second membrane (the iris), the internal surface of the part EF (our pupillary sphincter and dilator muscles), which faces the back of the eye, is completely black and opaque, and has at its centre a little round hole that is called the pupil and appears black at the middle of the eye when one looks at it from without. The hole is not always the same size, because part EF of

the membrane that the hole is in, swimming freely in humour K, which is very liquid, seems to be like a little muscle that is enlarged or diminished under the direction of the brain as use requires.

The shape of the humour marked L, which is called the crystalline humour (the lens), is like the shape of the glasses I described in the treatise on Dioptrics, by means of which all the rays that come from certain points are assembled at certain other points; and its matter is less soft, is firmer, and consequently causes a greater refraction than that of the two other humours that surround it.

E and N are black filaments that come from within the membrane DEF and completely encircle the crystalline humour; they are like so many little tendons by means of which its shape can be changed and rendered a little flatter or a little more arched according to need. Finally OO are six or seven muscles which are attached to the eye on the outside and can move it very easily and very quickly in all directions.

Now the membrane BCB (the cornea), and the three humours K, L and M (aqueous, crystalline and vitreous), being very clear and transparent do not prevent the rays of light which enter through the pupil from penetrating the back of the eye where the nerve is, nor from striking as easily against it as if it were exposed; they serve (rather) to protect it (the retina) against injuries from air and other external bodies which could wound it easily if they touched it; and (they serve) further to keep it so delicate and tender that there is no wonder it can be moved by acts so slightly perceptible as those I here take to be colours. (Treatise of Man. pp 51-53.)

Now this view, if it is correct, must go a long way towards making the world safe for Realism. Whatever is placed before the lens of the eye is reproduced in great detail on the retina due to the refractive capacity of the eye. And, if you are inclined to view Descartes as an antique figure, it will perhaps come as a surprise to know that his picture of the eye is virtually identical to the modern picture. In "Eye and Brain" (pp 49-64) R.L. Gregory gives an almost identical account of the physiology and function of the eye. Indeed, even Gregory's criticism of Descartes, that Descartes believed most

refraction took place at the lens rather than the cornea, is misplaced, as a close examination of Descartes' diagrams shows. (Gregory probably made this mistake by paying too much attention to Fig. 9 which does indeed seem to show this. Subsequent Figures, however, make it perfectly plain that Descartes too believed the cornea to be the primary organ of refraction. Figure 12 is especially good in this respect.) In fact the only important difference between the two accounts is, as Gregory rightly points out, that the surface of the retina is relatively insensitive to light and the sensitive "photoreceptors" are at the back of the eye, behind a mesh of blood vessels and nerve fibres. So Descartes' analogy with the camera obscura has been continued right to the present day. The eye as mirror of the world seems like "the only game in town".

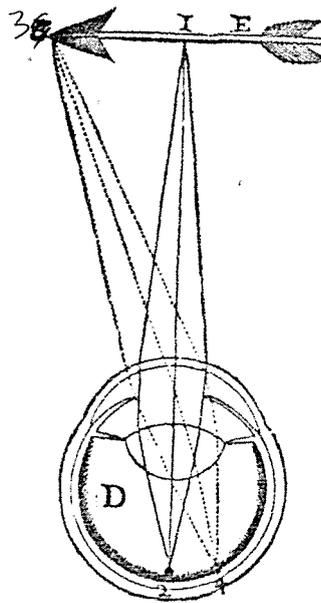
Moreover, Descartes and Gregory are in total agreement over the purpose of the eye; namely that it serves to enlighten the organism concerned about the true state of the world. Through the eyes reality is made explicit, a reality of movement and physical objects.

Detection of movement is essential to survival. From the animals lowest on the evolutionary scale to man, moving objects are likely to be either dangerous or potential food, and so rapid and appropriate action is demanded, while stationary objects can generally be ignored. Indeed it now seems that it is only the eyes of the highest animals which can signal to the brain the absence of movement.

Something of the evolutionary development of the eye, from movement to shape perception, can be seen embalmed in the human retina. The edge of the retina is sensitive only to movement. This may be seen by getting someone to wave an object around at the side of the visual field, where only the edge of the retina is stimulated. It will be

found that the movement is seen but it is impossible to identify the object. When the movement stops the object becomes invisible. This is as close as we come to experiencing primitive perception. The very extreme edge of the retina is even more primitive: when stimulated by movement we experience nothing, but a reflex is initiated which rotates the eye to bring the moving object into central vision, so that the highly developed foveal region with its associated central neural network is brought into play for identifying the object. The edge of the retina is thus an early warning device, used to rotate the eyes to aim the sophisticated object-recognition part of the system on to objects likely to be friend or foe or food rather than neutral. (Eye and Brain, pp 93.)

Such an eye is obviously splendidly equipped to mirror a world full of objects, especially those which are threatening or nutritious. Descartes too, while not so concerned with the survival value of the mirroring eye, similarly esteems it for its ability to enlighten the organism as to the position and quality of surrounding objects.



(Fig. 14, Treatise of Man. pg 61.)

Similarly, if eye D is turned toward object E (Fig 14), the soul will be able to know the position of this object, inasmuch as (in the brain) the nerves from this eye are

differently arranged than if it were turned towards some other object. And (the soul) will be able to know the shape (of E), inasmuch as rays from point I assembling on the nerve termed optic (the retina) at point 2 -- and those from point 3 at point 4, and so forth -- will trace there a shape corresponding exactly to the shape of E. Note also that the soul will be able to know the distance of point 1, for, as has just been mentioned, in order to make all the rays coming from point 1 assemble precisely at point 2 at the centre of the back of the eye, the crystalline humor will be of a different shape than if the object were nearer or farther away. (Treatise of Man. pp 60 - 61.)

The eye is considered by both Gregory and Descartes to enlighten man as to the exact nature of the world around him.

And surely they are right about this? Isn't the fact that the eye truly mirrors the world shown by the mistakes animals make when their vision is in some way distorted? M.H. Pfister, for instance, attached right-left reversing prisms to the eyes of hens and found that they were unable to feed themselves and that their behaviour became severely disturbed. Even when less severe distortions were used chickens proved very incapacitated. A. Hess attached wedge prisms to the eyes of chickens and, even though these prisms shifted the images by no more than 7 degrees to either right or left, the chickens persistently pecked to one side of the grain they were feeding on. We are naturally disposed to say that the eye is designed to give us an accurate picture of the world and, if this picture is distorted, the organism suffers accordingly.

\* \* \* \* \*

Speaking as Mirroring.

Now, if the world of objects is so tidily mirrored in consciousness, it would seem only proper that our language too should mirror what is in the world. Where there are objects, there are object words; and where there are actions, there are action words. Each particular piece of the world has its counter-part in language.

All Referential Theories of Language and Correspondence Theories of Truth have this as their basic premise (though some such theories omit consciousness as part of the overall picture). The broad picture was first painted by Plato in the Sophist, where these supposedly degenerate figures, Sophists, were accused of making word images that were different from the objects they were images of and, hence, failing to mirror the world in words. The basic philosophical picture has been repeated many times since. One of the first to repeat it in the modern era (post Descartes) was Leibniz.

I only mean that [verbal] characters must show, when they are used in demonstrations, some kind of connection, grouping and order which are also found in the [natural] objects, and that that is required, if not in the single words -- though it were better so -- then at least in their union and connection. This order and correspondence at least must be present in all languages, though in different ways. And that leaves me with hope for a solution of the difficulty. For even though characters are as such arbitrary, there is still in their application and connection something valid which is not arbitrary; namely, a relationship which exists among them and things, and consequently, definite relations among all the different characters used to express the same things. And this relationship, this connection is the foundation of truth. For this explains why no matter which characters we use, the result remains the same, or at least the results which we find are equivalent and correspond to one another in

definite ways. Some kind of characters is surely always required in thinking. (Dialogue on the Connection Between Things and Words. Leibniz Selections, ed. Philip Wiener. p 10 )

Language clearly mirrors, or ought to do its best to mirror, the world.

More recently, this view was baldly stated by Wittgenstein in the Tractatus Logico Philosophicus.

2.15 The fact that the elements of a picture are related to one another in a determinate way represents that things are related to one another in the same way.

Let us call this connexion of its elements the structure of the picture, and let us call the possibility of this structure the pictorial form of the picture.

2.1511 That is how a picture is attached to reality; it reaches right out to it.

2.1512 It is laid against reality like a measure.

The same applies to language of course, for one of the ways in which reality may be pictured is by words.

4.021 A proposition is a picture of reality: for if I understand a proposition, I know the situation that it represents. And I understand the proposition without having had its sense explained to me.

But the details of this correspondence are often difficult to work out in practice. Usually however, the picture is one where the names correspond, either to things or ideas of things; and the logical structure of the language either does, or should, correspond to the

logical structure of the facts. Such a logically perfect language is described in detail by Bertrand Russell (acknowledging Wittgenstein) in his "Philosophy of Logical Atomism" lecture.

In a logically perfect language the words in a proposition would correspond one by one with the components of the corresponding fact with the exception of such words as "or", "not", "if", "then" which have a different function. In a logically perfect language, there will be one word and no more for every simple object, and everything that is not simple will be expressed by a combination of words, by a combination derived, of course, from the words for the simple things that enter in, one word for each simple component. A language of that sort will be completely analytic, will show at a glance the logical structure of the facts asserted or denied. The language set forth in *Principia Mathematica* is intended to be a language of that sort. It is a language which has only syntax and no vocabulary whatsoever. (Logic and Knowledge Pp 197-98. ed. Robert Marsh.)

All the elements of mirroring are here. Simple things are corresponded to by simple words. Blueness is corresponded to by the word "blue", squareness by the word "square" and Richard Perrott by the name "Richard Perrott", overlooking of course that Richard Perrott is not a "simple". Moreover the "simples" enter into various relations with one another; the book may be blue for instance. These relations will also be reflected by the syntax of the language. Hence, two simples in relation compose a fact, a fact whose structure is reflected by the syntax of the language, so that things and facts both come to be mirrored in the language.

In Leibniz, Wittgenstein and Russell this picture is presented as somewhat of an ideal for language to strive after. But it was also assumed that mirroring was how our actual language worked (despite the inconvenience of our terminology for analysing it). Thus

"Napoleon married Josephine" actually did picture a single atomic fact; and the words "Napoleon" and "Josephine" and "married" actually did each correspond to an entity or relation which did in fact exist. Of course there were problems with our common language. It contained all sorts of expressions which were later called by Ryle "Systematically Misleading". Words such as "horse", "God", "virtue" and "the present King of France" all seemed to correspond to things; but didn't, since there was nothing for them to correspond to. But these were considered manifestations of the inadequacy of the ordinary language and its proneness to try to confuse us as to the true nature of the facts. Basically the language was assumed to follow the ideal structure of the language of Principia Mathematica; which itself mirrored the structure of the external world. Truth, absolute truth, was thereby assured.

And surely these philosophers must be right. Mirroring must be the way language works; for indeed, there are facts and true and false statements about them in our language. If I say that the grass on my front lawn is green, surely we read and understand the sentence and then go and look at the front lawn to see if the grass is, in fact, green. Do we not compare the contents of the sentence with the content of reality? And, if I say that on July 14th 1789 the Parisian mob stormed the Bastille, what I say is presumably true or false; and it is presumably true or false depending on whether or not, on that particular day, the Parisian mob actually did do just that. We compare the action which the sentence asserts happened with the action which actually did happen; and if they match up then the statement is true. Such comparisons form the foundation of all

empirical disciplines; and empirical disciplines surely form the basis of our intellectual and political life. If language does not work that way we have been living out a lie.

\* \* \* \* \*

The Pre-condition for Mirroring.

But of course, if language mirrors the world, then the world is primary and the language secondary. There can be no image in a mirror without an object. By the same token there can be no true proposition which does not mirror objects in various relations. The world cannot therefore be language dependent; but quite the contrary, the language must be world dependent. Learning a language is, in a real sense, subsequent to learning about the world. And this too scientists seem to have shown; for there are many random experiments which show that children have a lively appreciation of objects, object persistence and cause long before they can talk.

Jerome Bruner has found that babies of a few months, who certainly cannot talk and show little or no response to language, have a considerable appreciation of objects in the external world. When Bruner made video films of babies reaching for toys or wooden bricks he found they opened their fingers to the appropriate size of the objects, as well as judging their distance and direction. T. C. Bower found a similar appreciation of objects amongst young children. He presented stereoscopic images to babies and found, that when the babies reached out to touch these apparent objects and could not,

they showed either surprise or distress.

Moreover babies seem to quite rapidly develop notions of object persistence. Even very young babies, watching an object move behind an opaque screen; move their eyes to the other end of the screen anticipating that something will emerge. If, in fact, nothing emerges they often manifest surprise. Very young babies however do not tend to be surprised if a teddy bear passes behind the screen and a different object, say a fire engine, emerges. Children of a year old however, and one year olds do not normally manifest any linguistic ability, often become quite upset at such a transformation. This surely illustrates that they have already grasped, what is called by psychologists, "object persistence"; and that they have done so quite independently of language.

The conclusions of these somewhat random experiments are repeated and carefully integrated in the work of Jean Piaget. Piaget's conception is rather Kantian, as his notion of "schema" shows. But he also believes there is a world of natural objects: to which we can adapt or fail to adapt. This is implicit in the notions of "assimilation" and "accomodation". It is explicit, however, in much of the rest of Piaget's work: for Piaget is quite emphatic that our notions of "object" and "cause" are pre-linguistic and are developed in what he calls the "sensori-motor phase", which occurs between 0 and 2 years. In Stage 2 of the Sensori-Motor Phase, 1-4 months, Piaget claims that children begin to distinguish objects. They follow things that move, they look for things in a certain location where they are accustomed to seeing them.

Thus, Lucienne, at 0;3[9] sees me at the extreme left of her visual field and smiles vaguely. She then looks in different directions, in front of her and to the right, but constantly returns to the place in which she sees me and dwells on it every time for a moment.

At 0;4[26] she takes the breast but turns when I call her and smiles at me. Then she resumes nursing but several times in succession, despite my silence, she turns directly to the position from which she can see me. She does it again after a pause of a few minutes. Then I withdraw; when she turns without finding me her expression is one of disappointment and expectation. (The Construction of Reality in the Child. pp 10-11.)

By Stage 3 of the Sensori-Motor Phase, 4-8 months, children are beginning to develop notions of the permanence of objects.

Observation 6 - Laurent's reaction to falling objects still seems to be non-existent at 0;5[24]: he does not follow with his eyes any of the objects which I drop in front of him.

But:

At 0;7[29] he searches on the floor for everything I drop above him, if he has in the least perceived the movement of falling ----. (The Construction of Reality in the Child. p 15.)

Obviously the child is beginning to believe that objects persist through time and can change location.

By Stage 4, 8-12 months, infants begin anticipating certain events. They seem, according to Piaget, to know that certain events cause certain other events. In The Origins of Intelligence in Children, Piaget illustrates his contention in the following way.

Observation 132 - At 0;8[6] Laurent recognises by a certain noise caused by air that he is nearing the end of his feeding and, instead of insisting on drinking to the last drop, he rejects his bottle ----.

Observation 133 - At 0;9[15] Jaqueline wails or cries when she sees the person seated next to her get up or move away a little [giving the impression of leaving] ----.

At 1;1[10] she has a slight scratch which is disinfected with alcohol. She cries, chiefly from fear. Subsequently, as soon as she again sees the bottle of alcohol she recommences to cry, knowing what is in store for her. Two days later, same reaction, as soon as she sees the bottle and even before it is opened. (pp 248-249.)

I could, of course, continue with other examples of children developing a pre-linguistic knowledge of objects and causes; but the above, if correct, must suffice to show that children do indeed achieve a quite sophisticated knowledge of the external world of objects long before they can talk.

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Mirroring, and the philosophical views which go with it (Realism and Language Independence) therefore seem the only sensible views. We know there are objects in the world because of our hunger, vulnerability and mortality; and because if any one sense lets us down, the other senses will soon be made unpleasantly aware of what the first sense failed to detect. Moreover, it seems perfectly plausible that consciousness mirrors the world, that an image of the world is cast on the retina, an image of which we are immediately aware. If this were not the case surely, like Hess' chickens, we should continually miss our marks. It also makes sense to suppose that language mirrors the world, for we certainly seem to compare

what we write or say, with what we see to be the facts of the matter. Moreover, this picture of language is wholly in keeping with the psychological studies which indicate that children appreciate a good bit about the world before they talk. For, if the world were language dependent, children would remain in complete ignorance of it until they began to speak. This form of "Metaphysical Realism" seems indisputable.

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Chapter 2DOES OUR CONSCIOUSNESS MIRROR THE WORLD?

But the views of the "Metaphysical Realist" presented in the previous chapter are far from indisputable. Let us take first his view that objects are mirrored on the retina and that these image<sup>s</sup> are what we are directly aware of: that we see the one and only "real world". Such a picture has two defects. FIRSTLY: since different organisms see the world differently, or perhaps see different worlds, it is not clear what is meant by a claim to see the "real world". SECONDLY: it is simply untrue that what might be called the contents of our consciousness mirror the image on the retina. In both places the simple mirroring analogy breaks down. The incoherence of the first view and the falsity of the second combine, in my opinion, to make the standard copy theory of the Metaphysical Realist untenable almost before it is started.

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If we suppose the world is mirrored on the retina, complete and as it is, we are immediately presented with a conceptual problem. For the following three statements appear as though they ought to be true.

- a. Frogs see the world as it really is.
- b. Cats see the world as it really is.
- c. Humans see the world as it really is.

Yet, to the best of our knowledge, these three categories of living organism see the world in quite different ways. Frogs tend only to see movement; cats, while they appear to see objects, see only colourless objects; and human beings see both objects and colour. So, immediately the question arises, which of these three organisms sees the "real world"? As human beings we are naturally tempted to say that it is WE who see the real world. The frog seems rather mean and deprived compared to human beings who see a world of objects. The cat, while seeing the whole world, sees only a drab copy. Our picture is so much more complex and vivid that it seems it must be we who see the real world.

But, underlying this claim are two assumptions, neither of which are ~~is~~ obvious, or even very plausible.

1. For a start, we are assuming that what is more complex is necessarily more real. Yet this may not be so. Perhaps human beings simply embellish all they see with a whole lot of superfluous detail and the simpler world of the cat, or even the frog, is actually the "real world" after all.

2. As well, it is far from apparent that human beings do see a more complex world than other living things. The hawk must have very sharp eyesight to pick up a mouse moving in a wheatfield from where he hangs in the sky. Moreover, it is known that bees have four cones in their eyes, one more than we do, so, it seems probable the world of the bee is rather more colourful than our world. In the case of colour we may compare with the bee about as favourably as the frog

compares with us in the case of objects. At most we should say that human beings see the world from their point of view, as do frogs and cats. It is not at all apparent which, if any, point of view is to be considered as mirroring the "real world".

But, even if this problem were soluble, and I do not believe it is unless we can find a perceiver of the world who has no point of view, surely an impossible task; it would still not be apparent that we see the world completely as it is.

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For us to be able to see the world completely as it is, seeing would need to be an exact analogy with mirroring. Yet, there is no reason to believe that this is so, in fact. For instance, place an object in front of a functional mirror and, given normal light conditions, an image of the object concerned invariably appears. Yet this is not the case with seeing, for, in some cases, when an object is placed before a normal eye, little or nothing is seen. Consider the following example of Miss H.D. who was an inhabitant of the Middle East. In all practical respects she had been blind since birth. She was kept isolated in her home environment until she was 15. Yet, in spite of this, she successfully passed her university entrance exam at the age of 21 and then gained her B.A. at the age of 25. On learning about corneal grafts she raised the necessary money and went to London for the operation. The operation was duly performed and, from a medical point of view, was a complete success. Yet, in spite of this, Miss H.D. was totally unable to distinguish

objects by their shape.

The tests and informal observations together demonstrate the peculiarities and remarkably limited scope of H.D.'s vision. After the operation she was able to detect, locate and follow the movement of conspicuous objects, to avoid large obstacles moving round and to make certain discriminations on the basis of brightness and possibly gross colour differences; but she remained unable to do the one thing for which vision is chiefly valued, namely to recognise objects by their visual form. (Ackroyd, Humphrey and Warrington: cited in Molyneux's Question, M.J. Morgan, p 184.)

Eventually Miss H.D. went back to living the life of a blind person.

So, whatever seeing does involve, it involves something more than successfully receiving an image at the back of the retina; for there is little doubt that H.D. received such images yet saw nothing, other than perhaps blobs and patches. For this reason vision cannot be a simple mechanical business. Objects placed in front of mirrors cast images, objects placed in front of retinas are not necessarily seen.

The disanalogy between seeing and mirroring becomes even stronger when we consider the problem of image inversion. Place an inverting lens between an object and a mirror and the image will be inverted as well as reversed. Remove the lens and the mirror image will resume its normal orientation. All changes that occur are systematic and perfectly explicable by the laws of geometrical optics. But, place an inverting lens before a human eye and the changes are anything but systematic and certainly cannot be explained by the laws of optics alone. Consider the following report of experiments with inverting lens.

If a subject is made to wear glasses which correct the retinal image, the whole landscape appears at first unreal and upside down; on the second day of the experiment normal perception begins to reassert itself, except that the subject has the feeling that his own body is upside down. In the course of a second set of experiments lasting a week, objects at first appear inverted, but less unreal than the first time. On the second day the landscape is no longer inverted, but the body is felt to be in an abnormal position. From the third to the seventh day the body progressively rights itself, and finally seems to occupy a normal position, particularly when the subject is active. When he is lying motionless on the couch, the body still presents itself against the background of the former space, and, as far as the unseen parts of the body are concerned, right and left preserve their former localisation to the end of the experiment. External objects increasingly have the 'look of reality'. From the fifth day actions which were at first liable to be misled by the new mode of vision, and had to be corrected in the light of general visual upheaval, now go infallibly to their objective. The new visual appearance which, at the beginning, stood out against a background of previous space, develop round themselves, at first (third day) only through a great effort of will, later (seventh day) with no effort at all a horizon with a general orientation corresponding to their own. On the seventh day, the placing of sounds is correct so long as the sounding object is seen as well as heard. It remains unreliable, and with a double, or even inaccurate, representation, if the source of sound does not appear in the visual field. At the end of the experiment when the glasses are removed, objects appear not inverted, it is true, but 'queer' and motor actions are reversed: the subject reaches out his right hand when it should be his left. (Phenomenology of Perception, M. Merleau-Ponty Pp 244-45.)

Now there are quite a few curious features to be noted here. At first, the human subject responds just as a mirror would, so reinforcing the copy theorist's analogy. But then the organism begins to "adapt" which the mirror never does. This might not be so bad if the adaptation was instantaneous and wholesale. But it is not. Rather, the mechanism adapts bit by bit, so there can be no analogy between the adaptation of the eye, on one hand, and the removal of the inverting lens, in the case of the mirror, on the

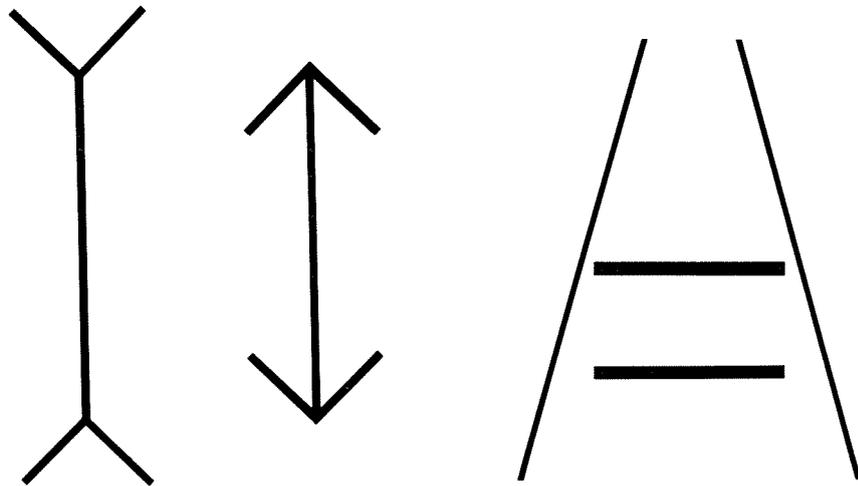
other. Indeed, the disanalogy is reinforced; for when the inverting lens ~~is~~ removed from the eyes of the experimental subject who has successfully adapted his vision, the world does not immediately invert again, as would be expected if his adaptation were simply mechanical, but merely looks "queer".

So, despite the fact that we are inclined to view seeing as a close analogy to mirroring, the analogy does not hold. Seeing is not the simple result of having a normally functioning receiving mechanism, as the case of Miss H.D. demonstrates. The simple laws of optics which govern reflection and refraction are not the only factors involved in seeing. Whatever seeing involves it is considerably more complex than casting an image in a mirror.

And, if we now turn to the matter of size constancy, the seeing mirroring analogy breaks down completely. Images are cast on the retina, but this is not what we see (as might already have been suspected from the previous example.) If we look at a theatre audience from the stage, for instance, the faces all appear to be the same size. Yet, if we actually saw the image as it appeared on the retina, those in the back stalls would appear half the size of those in the front stalls because the image of them would be half the size. Similarly, if you hold both your hands out in front of you, one twice as far away as the other, they still look similar in size unless you bring them into line; in which case the nearer hand immediately obscures the further hand. This latter is a case of the restoration of perspective.

This particular phenomenon was extensively investigated by Robert Thouless in the 1930's. Thouless got a series of cardboard squares two of which were of the same or similar size. One of these he placed quite far away from the observer. The other he mixed up with a number of squares of different sizes. This latter group of squares he placed close to the observer. Had the observer accepted the evidence on his retina he could never have matched the squares correctly. Yet, in the large majority of cases, the squares were matched correctly, showing that we do not accept the evidence on the retina as any sort of given. Rather, we apply what we know of size, distance and perspective to what is projected on the retina.

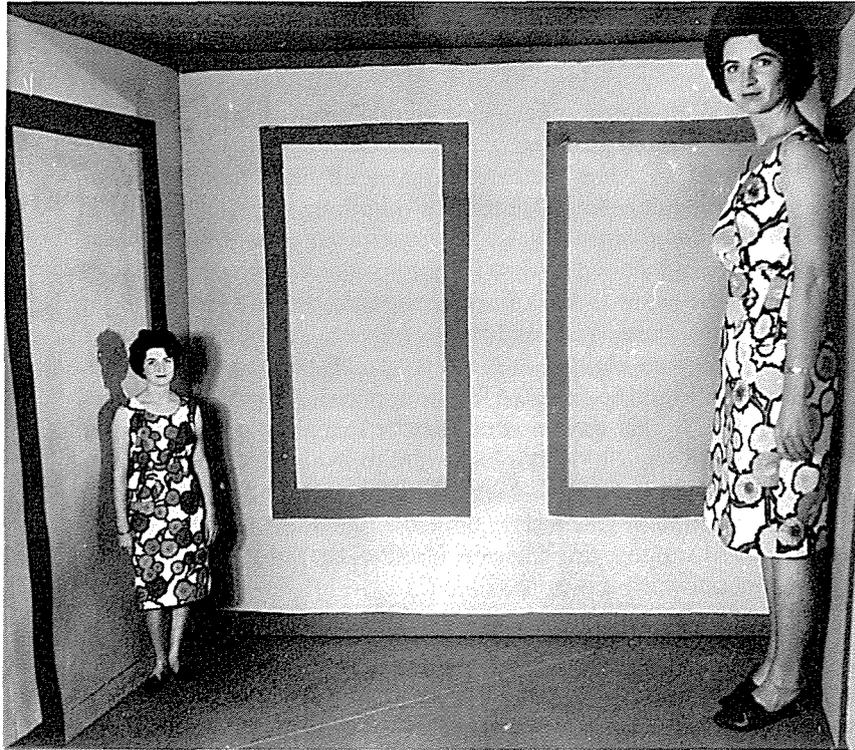
This sort of compensation can be vividly seen in some of the illusions to which we are prone. Two such illusions are the "Muller-Lyer Illusion" and the "Ponzo" or "Railway Lines Illusion".



(Figs. 9.4 and 9.5 Eye and Brain. R.L. Gregory. pp 138-39.)

In the Muller-Lyer Illusion the line with the outpointing arrowheads looks much shorter than the line with the inward pointing arrow heads. In the Ponzo Illusion the upper of the two lines appears much the longer, even though the two lines are in fact the same length, as indeed are the lines in the Muller-Lyer Illusion. Now people from a European culture are thoroughly familiar with these sorts of sights. Sharp edges and straightlines are very much a feature of our environment. We have all seen railway lines stretching into the distance across flat plains and the vast majority of our buildings are rectangular and sharp edged. Zulus, however, live in a world quite remarkable for its absence of straight lines and square figures. Zulus have round huts, round cooking utensils and even plough their land in curves rather than straight lines. In consequence, while we are singularly susceptible to these illusions, Zulus are not prone to them at all. We have become accustomed to interpret certain cues in certain ways, while the Zulu, whose training is different, sees things differently.

Indeed, such is the strength of our own cultural expectations, we can often be taken in in quite spectacular ways. This was vividly illustrated by American psychologist Adelbert Ames. Ames devised a room where the back wall sloped backwards so that the left hand side wall, viewed from the front, was twice as long as the right hand wall. However, by using some shrewd tricks of perspective painting, he managed to make the room seem square so that, when we look at the picture, (See next page.) the woman in the left back corner looks unnaturally small, while the woman on the right hand wall seems unnaturally big.



(Fig. 10.11. Eye and Brain, R.L. Gregory: pg 178.)

We accept that it is the figure which is abnormal because our visual training leads us to believe that when certain lines and angles are presented rooms must be square.

Mind you, other cultures are in similar situations. Zulus may not be taken in by straight line and rectangular illusions but they have a defective sense of distance. This defective distance sense is even more marked in some African races who live in the dense forest. These people are only used to dealing with very short distances; so when they are taken out of their natural environment and shown distant objects, they see them, not as distant, but as small.

In summary, seeing is plainly not just a matter of reporting the image cast on the retina. If it were, all distortions produced by the inverting lens would be systematic, which clearly they are not. Moreover, it seems that even though the biological mechanism for seeing is perfectly in order and a perfect image is cast on the retina, seeing can still fail to take place. Finally, in questions of size we do not report, or indeed see, what is on the retina at all. Rather we see things as we expect them to be and our expectations are very much influenced by our culture.

\* \* \* \* \*

More important still; it is quite obvious that at least in one of our senses, if science is right, we do not mirror anything in the world at all. That sense is colour. As we all know light is not, strictly speaking, coloured at all. Light is, as far as science is concerned, merely a small part of the spectrum of electromagnetic radiation. Non visible parts of this spectrum are responsible for transmitting the heat of the sun and transmitting music by way of radio. Xrays are also part of this spectrum. Light is nothing more nor less than a fluctuation of electrical potential; and as such, is simply not a candidate for being coloured at all. Hence the following cautionary homily by Newton.

"If at any time I speak of Light and Rays as coloured --- I would be understood to speak, not philosophically and properly, but grossly, and according to such conceptions as vulgar people --- would be apt to frame. For the rays to speak properly are not coloured. In them there is nothing else than a certain Power and Disposition to stir up a Sensation of this or that Colour." (The Optiks. Pp 124-25.)

All would not be lost for the copy theorist, however; if he could maintain that there was at least some correlation between the frequency of light waves and the colour seen. Unfortunately this is simply not the case either. The theory of colour vision has a complex history. Basically three different stories have been told.

The first of these stories was presented by Thomas Young in 1802. According to this story we have three different types of cones each of which is sensitive to a different wavelength of light. Hence one set of cones are sensitive to comparatively long wavelengths, (red), one set to medium wavelengths, (green), and one set to comparatively short wavelengths, (violet). So, when the fire engine reflects long wavelength light, I duly see a red fire engine; and when the grass reflects medium wavelength light, I see green grass; and when the sea reflects shortish wavelength light, I see a bluish purple sea. That is: long wave length light fires the red sensitive cones and we see red; medium wave length light fires the green sensitive cones and we see green; and so forth. A copy theory realist could well take solace from such a story.

This tidy tale was upset, though, by the speculations of Herman von Helmholtz, whose theory has received a great deal of support from a host of more recent scientists. According to this theory, light, the visible portion of the spectrum of electromagnetic radiation (between 400 nanometers and 700 nanometers) is absorbed, differentially, by all three types of cone. It is, therefore, not the amount of radiation absorbed by any one cone, but the ratio of absorption over all three cones, that is important. If this is so,

it follows that similar ratios may be caused by a wide variety of actual wavelengths and the same colour might be caused by differing amounts of flux. For instance, as a purely mathematical example; the ratio 5:7:4 could be brought about by differential rates of 50:70:40, 45:63:36, 40:56:32 and so on. And, while in practice not all these mathematical possibilities are available; there is sufficient variation available to ensure that substances or objects with widely different chemical properties appear, to the observer, to be the same colour. A surface appears white when it reflects wavelengths of light that stimulate all cones in equal proportion; and this situation applies irrespective of the nature of the surface. The correspondence is beginning to break down.

However, there is yet a third story to tell. Grass after all looks green from dawn to dusk; and surely at different times of the day the same blade of grass reflects different amounts of the relevant electro magnetic radiation as the sun waxes and wanes. And of course, this is exactly what does happen; as American scientist Edwin Land found out during a series of ingenious experiments. Indeed, one wall of uniform colour was found to reflect waves of quite different frequency at different points, without losing its uniformity of colour; though under the Helmholtz theory, the wall should have been different colours. Thus, any correspondence between the frequency of the light wave and the colour we see, has been completely undermined. The colour we see is not dependent on any natural phenomena at all, it would appear.

And the story actually given by Land to explain colour is really

very surprising. He maintains that not only the cones but the rods are involved in colour perception. Moreover, he maintains that the cones are not sensitive to colour at all, but to brightness. Each system of cones, that is short, medium and longwave sensitive cones, sees the world in different ways. (The analogy here is to three different black and white snap shots of the same scene each taken through different filters. In one snapshot an apple may seem dark, in another very light, and in the third of medium brightness.) Hence, what is light to one set of cones may be dark to another or of medium brightness to the third. Colour only enters the picture at all, when what Land calls the "retinex system", compares all the different brightnesses picture by picture. Thus the apple, mentioned above, becomes red when you have just this combination of dark, light and medium when viewed by all three sets of cones. In other words, colours are added by the perceptual system itself.

But surely, we suspect, the very stability of colours must depend to some extent on light flux. But even this proves not to be the case according to Land. Colours are adjusted to a degree, but NOT according to wave frequency. RATHER they are adjusted to the best white available at any given time and, the best white available is simply, the whitest white around. And Land's claim about the status of the best white available can be confirmed by quite a few mundane observations. Car lights, seen on country roads where there is little competing illumination, appear white. The same lights, seen in an urban environment where there is an abundance of competing illumination, look yellow. Often street lights turned on well before dusk look red, whereas after dark, they are orange or even white.

The appearance of light certainly does alter under differing conditions so, presumably, Land's story is correct.

Thus science tells us a very Kantian story about colour. Colour, far from mirroring anything out there in the world is created by our own perceptual system. The retinex system sees the world, as it were, in black and white and then touches up the image it receives according to its own particular recipe, with due cognisance of the palest area of the scene. Colour exists in the eye of the beholder, not in objects at all.

\* \* \* \* \*

Seeing then, is not at all like mirroring. Certainly we are given something, but the nature of that something is not at all clear. The given is quite extensively reorganised by our perceptual system and then is touched up with colour; in much the same way as photographers touch up black and white photographs. The situation seems to be, to use a bit of Existentialist jargon, that what is seen is both "given" and "constituted". This is Kant's "noumena"\'phenomena" split all over again: and surely no Realist, let alone a Realist who holds some sort of copy theory, can take any comfort or receive any support from such a picture. Indeed, his whole position is seriously undermined. Consciousness does not mirror the world, or even the image cast on the retina.

But, even if consciousness did mirror the world, it would still be up to an exponent of a copy theory to prove that the language

itself could mirror the world. It is to this question that I now wish to turn.

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Chapter 3.DOES OUR LANGUAGE MIRROR THE WORLD?

Now, if consciousness does not mirror the world, the Realist's position is considerably weakened, for, it is usually said, we know at least some of the world via consciousness. But, as long as language can be thought of as mirroring the world, the Realist still has a position to defend. For we certainly understand language and, if language has some sort of one to one correspondence to the world, we must be able to know, either now or in the future, what the "real world" is actually like. But, can language have this relationship to the world? Can language in fact mirror the world?

\* \* \* \* \*

There is at least one story of language which says that language pictures reality. (Some versions of the story say that language "maps" reality, but, since a map is a "picture" of the terrain, I will assume that both these claims are the same.) But a Metaphysical Realist must claim more than this. He must claim, not only that language "pictures" reality, but, that language either does or can provide, the one and only true "picture" of reality. But, is there any sense in the notion of the one and only true "picture" of reality?

Think of a few painters at random. Perhaps we could choose;

Van Gogh, Reubens and Constable. All these painters lived in different countries and different times to be sure. All of them were, after their own fashion, realists. Constable painted the dreamy and dappled grace of the English countryside. Reubens revelled in the buxom earthy passion of his sagging blondes. When he painted landscapes they were usually brooding and intricate vistas. Van Gogh, on the other hand, captured the turmoil of nature itself, sun drenching the vineyards, apple blossoms exploding from the bough, wind churning the grass into a hectic sea. When we look at the paintings of any of these painters we recognise something that we ourselves have seen in nature. At certain odd moments we too have seen nature as Van Gogh saw it or the English landscape as Constable saw it. That is why we wish to say they are all realists, in spite of their different techniques.

Now, suppose we sat them all down in front of the same scene. Would they all paint the same picture? I very much doubt it. Van Gogh's painting would have a weight, a feeling of oppression, entirely lacking in the innocent rustic scene of Constable. And the Reubens' might have an element of the sordid missed by either. The Reubens' might well show the tricycle, rusting in the Mill Pond, the others had omitted. But none of us would be prone, on viewing their finished paintings, to say, they had not painted the scene requested. We would not say they had embellished the scene, or invented it. These men are, after all, great painters and they are great painters for reasons other than simply their technique. No! These men have each painted the scene as they saw it. We can all see why they painted it that way. If you like, they all bring out different

aspects of the scene. But their pictures are certainly not the same. For no picture ever reproduces reality in its entirety. If it did it would not be a picture.

Consequently, when a Metaphysical Realist claims that words can, or do, paint the one and only true "picture" of reality, he is at best being misleading. For, what he really means to claim, is that words "mirror" reality. For, in one sense at least, mirrors present the world without interpretation and so, can be thought of as presenting the world as it is. (Of course we should even be careful of mirrors, for slim mirrors make slim ladies.) Mirrors do not present aspects of the scene, they simply reflect it. It must, therefore, be the duty of language to also reflect what is before it. Language should mirror the world.

Now, in one obvious sense, language mirrors nothing. A quick glance at a page of writing does not reveal a face in the same way as a quick glance in a mirror may reveal a face. A sentence is not the same as a reflected ear, a word is not the same as a reflected pimple. No one would dream of holding a page of description up opposite a face and comparing the two things point by point. We would not look for a reflected lock of hair in the centre top of a page held before someone who had a lock of hair in the middle of their forehead. Reflections in mirrors are really different things to paragraphs on pages.

But, argues the proponent of the mirroring story, both paragraph and mirror image do reveal the same basic thing, namely the "facts".

If there is a cat on a mat, a mirror, pointed in the right direction of course, will show this fact visually and a sentence will show it verbally: and just as the mirror presents exactly what is there, no more and no less, so the good sentence does the same thing. Hence journalism is good writing because it only presents exactly what happened. If Smith dies then all a journalist does is tell you this fact. He does not present it as necessarily happy or sad. In the same way a mirror simply shows the scene before it. It does not invite you to be tearful or joyful. It simply presents you with the facts, as they stand, and leaves you to make of them what you will.

\* \* \* \* \*

But, if language mirrors facts then, presumably, facts are to be found in the world. In some sense or other, the world should be made up of facts.

1.1. The world is the totality of facts, not of things.  
(Tractatus Logico Philosophicus; L. Wittgenstein. pg 7.)

But, are there any facts in the world?

Well, one discipline which seems to assume there are, is history. Historians read through their sources to find all the facts. Once these facts are all found historians attempt to make something of them. They try to "reconstruct" the past so that we know what "really" happened. This they try to do irrespective of personal bias and cultural predilections. In other words, they try to mirror the past in the present. This particular methodological

approach is rather nicely expressed by English historian G.R. Elton.

The historian's task is to discover, reconstruct and explain what has happened in the past from such survivals of the past as are found in the present. The pervasive problems facing him are two: the extant evidence is always incomplete and usually highly ambiguous, and in trying to understand and explain that evidence he inescapably introduces the (possibly distorting) subjectivity of his own mind. These barriers stand squarely in the way of every effort to produce an account of the past which comes as close as possible to a truthful reconstruction, independent of the observer, of past situations and events. (Studies in Tudor and Stuart Politics and Government; Vol 3, pg 416)

Elton's picture is classical. First of all the historian must have "evidence" or facts. Out of these facts he must build a "truthfull reconstruction", and this "truthfull reconstruction" must, moreover, be "independent of the observer". But the real nature of this reconstruction is betrayed by Elton when he refers to subjectivity as "possibly distorting"; for he is referring to the distorted image and the only undistorted image is, of course, the mirror image. Elton too believes that language should mirror reality, in this case past reality.

But, how does this mirror image come into being? How does the historian "reconstruct" the past? Of course he has the facts, facts of varying degrees of acceptability and the corresponding statements of fact. Often, however, the statements of fact do not form a coherent pattern. It is therefore assumed that certain statements of fact are missing and that certain facts have, in consequence, been overlooked. These gaps need to be filled to produce a mirror image of reality. This process might be carried out in various ways. For

instance, an historian might reason along the following lines. "We know that A, B and C happened. If these things did in fact happen then D should also have happened. In fact D did happen as I have found in my researches. Therefore this is a mirror image of reality." Alternatively, he might reason like this. "We are told that W, X and Y happened. If they did happen then Z should also have occurred. But Z did not occur. Therefore either W or X or Y or some combination of these events did not occur at all." Then the historian would have to go away and check the evidence for W, X and Y and his work might well lead to a complete reassessment of a particular historical period. Alternatively, an historian might reason like this. "We are told that P, Q and R happened. If P, Q and R did indeed happen then S should also have occurred. In fact, though S did not occur, T did occur. P, Q and R however are virtually incontestable. They have been accepted by historians with widely differing views and are well documented in the literature of the period. However, if we add an additional premise O, then T follows quite logically from P, Q, R and the additional premise O. Therefore O must have happened and I will have to go away and find some evidence for O. If I can find evidence for O then I will have a true reconstruction of what happened." In these, and other ways, historians slowly seem to build their mirror image of past reality. They accumulate sentences which seem to reflect exactly what happened in the past. These sentences are the "empirical foundation" of their endeavours, the hub around which history spins.

But, one would think, a little reflection on their own discipline would pull historians up short. Disagreement among

historians is, after all, fairly common. There are a great many different perspectives and interests and points of view amongst historians. There are social historians, economic historians, religious historians, cultural historians; all giving interpretations of the same events, which differ to a greater or lesser degree. All of them have a different mirror image of reality.

But historians are not much bothered by these divergent images for their own Realist myth protects them. They believe that historical disagreement can be explained away in the following fashion. Supposing that, over a given historical period there is a spectrum of events from A to Z. One historian might present a picture of the period accounting for events A to G. A second historian might well give a picture accounting for facts E to J, while a third might give a picture accounting for facts A to C and X to Z. All these theories could not, of course, be true for there is only one mirror image of any situation. But this need not concern anybody too immediately. This is just a reflection of the inadequacy of the human mind when confronted with a highly complex reality. It is also a reflection of the fact that we do not yet have all the facts. For if we had all the facts everything would become clear. It would be obvious exactly what reality would be like. For, there on the page would be the statements of fact, which were the mirror images of the different bits of reality and, put all together, they would form one gigantic mirror image of reality. The image on the page would CORRESPOND exactly to reality, for the individual statements of fact would correspond exactly to the facts. These are our anchors to reality, it is against these facts that we match our

theories, it is by the correspondence of our images to these facts that we know whether our theories are true or false.

But are there really any facts "in the world" to be so mirrored? Even the briefest reflection should serve to convince us that there are not. For, frequently, historians dispute the facts themselves. Suppose that historian G maintains that on July 14th 1789 the Parisian mob stormed the Bastille and says so in a paper he delivers. In response historian F gets up and says that the Parisian mob did not storm the Bastille but merely took possession of it. In support of this historian F points out that the Bastille contained few prisoners and there was virtually no resistance by the guards. Historian G, however, takes umbrage. He maintains that if an armed mob rushes across a castle drawbridge and occupies a government building then that is a matter of storming the said building, whether there is any resistance or not. Historian F counters this suggestion with the assertion that the Ancien Regime was so enfeebled and corrupt that nothing so violent as a storming was needed to topple either it or the Bastille. Historian G simply snaps that given the later vigour of the revolution there is every reason to believe that the building was stormed. An impasse is reached.

Now, if statements of facts mirror facts what seems to be at stake is this. We have a certain event or fact. We have a crowd of angry sans-culottes who descend on the Bastille, on July 14th 1789, sounding the tocsin and waving their bill hooks and hammers. They overpower a few guards and enter the prison and release the few inmates who remain there. We need, therefore, to mirror this event

or fact. But there is a terrible debate as to which is the mirror image. Does "storming the Bastille" mirror this fact or does "taking possession of the Bastille" mirror this fact? Whichever description does mirror the fact is obviously the correct one. There is the event, here are the words. We must shuffle around trying to find the correct description of the fact.

But, if we give this account, we are simply misleading ourselves. For the reason for the different descriptions of "The storming of the Bastille" has already been given and; it is NOT that one description mirrors the events concerned better than the other. Rather, it is THE DIFFERING INTERPRETATIONS OF THE FRENCH REVOLUTION held by the two protagonists. Broadly speaking, historian G sees vigorous revolutionary forces confronting a still vigorous Royal Administration. Therefore he believes that the Bastille was "stormed". Historian F, however, sees an enfeebled and tottering Ancien Regime withering away in the face of a disorganised rabble astonished at its own success. Therefore, he sees the mob merely "taking possession of" the Bastille. HENCE, the terminology alters to fit the interpretation available. The STATEMENTS OF FACT change to fit the THEORY available. These statements of fact are not dependent on something OUTSIDE the language for their precise formulation but on something INSIDE the language. Therefore statements of fact cannot be dependent on mysterious facts in the world, whether such things exist or not. Therefore statements of fact cannot mirror facts in the world. BUT if statements of fact do not mirror the facts in the world then nothing in language mirrors anything in the world. And that is precisely the point.

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And, really, we are all perfectly aware that language does not mirror the world.

Suppose three of us, sitting side by side, write a quick description of the scene before us, just as Constable, Reubens and van Gogh earlier painted the same scene. Then we swap descriptions and read what has been written. After reading one of us might say:

"I don't see it like that at all. Where you see hostile and demented figures I see people preoccupied and at peace with themselves. "

Another might reply:

"Well, I must say I didn't see anything benign in the faces of the hurrying crowd. But then perhaps I got carried away by the large numbers of people and the speed of their movement. Coming from a place where the pace of life is slower and the buildings less overpowering perhaps I simply project my own discomfort onto the passing multitude. "

In response the third might say:

"My description is certainly much more bland than yours. Indeed, in some respects it says nothing at all. When I look at the passing crowd I don't really see anything definite. But I

do see why you describe the scene as you do. You two have each extracted one of a multitude of possibilities. But I see all the possibilities and together they cancel out. This crowd is faceless because it has so many faces."

This is a situation where each of the observers has come to different conclusions about the situation. We have each found the situation factually different. Yet no one gets particularly upset. Everyone knows that different people see things differently. In a sense we all know that the same scene contains different sets of facts. Scenes in the world may suggest words, but they never stipulate them and they certainly never force us to accept any particular fact as the one and only appropriate fact in this circumstance. Scenes and mirror images do not have this power and usually we know it only too well.

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Thus, at this point too, the Metaphysical Realist's picture fails. But the Metaphysical Realist's picture is now a double failure. Not only has he failed to show that consciousness mirrors the world, he has also failed to show that language mirrors the world. For mirroring is simply an improper analogy here, primarily because statements of fact, which seem to be the best candidates for mirror images of something in the world, facts, do not get their character from any particular thing in the world, but rather from the theory in which they are embedded. In any case the facts, which statements of fact are supposed to mirror, remain entirely mysterious

and are, I suggest, in fact synonymous with statements of fact.

Hence LANGUAGE IS NOT A MIRROR AT ALL.

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Chapter 4.DOES PRE-LINGUISTIC MEAN NON-LINGUISTIC?

The Metaphysical Realist's cupboard is now bare indeed. Neither language nor consciousness can be shown to mirror the world. But even his third position, that we come to know the world non-linguistically, can be shown to be dubious.

For this third thesis depends entirely on the equation of pre-linguistic and non-linguistic and this equation is, I believe, completely misplaced. Because a child does not talk, as yet, it does not follow that the child in question knows nothing about talking and language. That is; there is no reason to assume that a child has no appreciation of speech, or what is involved in speech, just because he does not speak. Indeed, I suggest that the muscular complexity of speaking is so great that of necessity it takes considerable time to learn; so much so that prior to the manifestation of linguistic skill there may be a speaker of some sort within the child bursting to get out.

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For a start, breathing for speech requires quite considerable control of the abdominal and intercostal muscles. Normal breathing involves a slow, powerful inhalation and a strong, rapid exhalation. Breathing for speech requires exactly the opposite: a rapid

inhalation and a slow, controlled exhalation. Moreover, speaking several sentences in succession often requires that the ribs be drawn up and that the intercostal muscles be contracted, while only the diaphragm is active in increasing and decreasing the size of the chest cavity. Such a technique is deliberately taught to actors but is doubtless acquired, to a degree, by all of us. Such a process is therefore unnatural, just as all breathing for speech is unnatural. These techniques must, therefore, be learned and given the difficulty actors have in mastering diaphragmatic breathing, it is hardly surprising that children are slow to speak; for they too must master something of this style of breathing.

In addition to a mastery of breathing, speech requires a complete control of the vocal chords. Speaking is not a matter of emitting a continuous flow of sound, as in screaming, for some sounds require the use of the vocal chords and some do not. Indeed, many of our consonants only differ from one another in being either voiced sounds (vocal), or breathed sounds (aspirate). Consider the following sets of consonants; p, b; k, g; t, d; f, v; s, z. In each set the sole distinction between the two consonants is that one is vocal and the other is aspirate. In consequence, before we speak, we must be able to turn the vocal chords on and off at will, and I doubt if this is an easy skill to acquire.

But, if speech requires control of the chest muscles and vocal chords, it also requires control of the muscles of the face and head. Think about the complexity of the sounds themselves. The consonant "p" is made by closing the lips and blowing them open. The consonant

"t" is made by placing the tongue on the palate just above the teeth, building up air behind the tongue and withdrawing the tongue to let the air out. The consonant "n" is made the same way, except that the tongue is slightly further back on the palate and is not withdrawn. The gutturals, "k" and "g" are made right at the back of the mouth by lifting up the back of the tongue in a virtual choking motion. And, if you think the consonants are difficult, just think of the vowels. Even the so called long monothongs; oo, oh, aw, ah, a, and ee, present formidable physical problems. The first four, for instance, only differ from one another by subtle degrees. The transition from "oo" to "ah" involves opening the mouth just a little wider on each occasion and moving the sound back in the mouth a little further on each occasion. There is also a slight lip contribution to the sounds. The sound "ee" on the other hand involves a clenching movement of the teeth, though the teeth are not actually clenched, and pulling back the lips as in a snarl.

In short, speaking language involves a great many complex physical movements which must take quite some time to master. Indeed, anyone who has spent any time correcting even minor speech defects in well grown children will know how difficult it is to teach these skills. I therefore suggest that it is at least a possibility that children have learnt a considerable amount about speech and speaking before they actually talk.

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But I suggest that such a hypothesis is actually more than a

possibility; for there is a great deal of evidence gained from studying the linguistic development of the very young, especially their development of syntax, which turns this suggestion into a virtual certainty.

The early speech of the child is usually characterised as "holophrastic", which is to say that the child speaks only in single words. Immediately succeeding this holophrastic phase of speech comes a phase characterised by Roger Brown, in his book "A First Language", as Stage I. Stage I speech is speech where the Mean Length of Utterance of the child (MLU) is between 1 and 2; which is to say, the child speaks at least some utterances of two or more words. For example; a child with an MLU of say 1.2 would speak mostly in one word utterances but, a fifth of their utterances would contain two words. Stage I speech is also thought of as "telegraphic", in that, articles, plurals and so forth are omitted. Consequently, a child who wished to say his father had kicked the ball would say: "Daddy kick ball", omitting the article and the past tense "has". In general, in this phase, the past tense is not mastered by children.

But, even in such primitive stages of language development, there is good reason to believe that children have a much greater mastery of language than they, in fact, express. Indeed, it has been suggested by at least one writer that even children in the holophrastic phase use their single words as though they have a grasp of the complete sentences which they will be producing in the future. This writer is Grace de Laguna in her book Speech: Its Function and

Development.

What the baby does from the beginning, when he is not indulging in pure vocal play, is to talk in complete, if rudimentary sentences. (pg 87)

What de Laguna is claiming, specifically, is that children's single word utterances should be treated as predicates of some object, or possibly some occurrence, in the immediate vicinity. Hence, to use a hypothetical example, if a child out in its pram with its mother saw a dog run past and said with some excitement; "Run", what the child would actually mean is "Dog run", in Telegraph Speech, or "The dog is running," in adult speech. De Laguna's own examples are even more convincing. A little girl, pointing to her brother, Raymond's, slippers says "Mon-mon". Clearly, given that the child called her brother Mon-mon and assuming that she has actually correctly identified the slippers and that the pointing is reasonably unambiguous, she is obviously trying to convey, at the very least, that the things she is pointing to belong to her brother. But this was no isolated incident and the use to which she put her single word utterances were quite various. On one occasion, having been teased or vexed by her brother, she came running to her father, again saying "Mon-mon". Obviously she wished to communicate to the effect that Raymond had not been very nice to her. Clearly, if de Laguna's examples are to be believed, even a child with a rudimentary mastery of speech has a fairly advanced knowledge of noun\verb constructions.

A similarly flexible use of a limited stock of words and a restricted length of utterance is reported by Lois Bloom, author of

Language Development: Form and Function in Emerging Grammars. Bloom uses an example gained from one of her subjects, Kathryn, who in two different circumstances used the same expression, "Mummy sock" for very different purposes. In the first instance Kathryn came across one of her mother's socks on the floor and, holding it up, said "Mummy sock". It is reasonable to assume that she meant "this is mummy's sock". In a different circumstance, when sitting on a chair with her mother putting on the child's socks, Kathryn again used the same expression. Given the completely different circumstances, it is rather improbable to assume that Kathryn meant the same thing as on the previous occasion, and quite reasonable to assume that the child meant something equivalent to; "Mummy is putting on my socks." Thus, again, a rather complex state of affairs is expressed in an infantile way. One might say that a complex grammatical knowledge is overlaid by a grossly simplified form of expression.

Indeed, in certain instances, there is quite good evidence that the complexity of a particular form of expression can positively prevent the expression of certain notions, which are, nevertheless, quite clearly grasped by the children concerned. A good example of this concerns the locative notions "into", "onto", "out of" and so forth. Two Hungarian studies, quoted in Roger Brown's A First Language, show that bi-lingual girls, who could quite easily grasp the use of locatives in Hungarian where the locative is expressed by alterations to the noun ending; could not use the locative at all in Serbo-Croat where the locative involves the use of locative prepositions as well as the usual case endings. Complexity of grammatical form had prevented them from applying a grammatical

notion that they actually understood. That is to say, they apparently understood such expressions as "into" and "onto" in the Hungarian they spoke but couldn't use them in the Serbo-Croat they also spoke.

In fact, there is good reason to suspect that children grasp a great many, if not most grammatical notions, before they use them with any frequency. A nice example of this is quoted on Pg 170 of Brown's A First Language. Adam I, a child with an MLU of considerably less than 2, was heard by the researcher to say: "I like pick dirt up fire truck"; a remark considerably beyond his normal linguistic competence. Brown comments:

"Very possibly sentences of this type represent the child's effort to say what he already knows how to conceive but has not yet learnt how to say in a fully grammatical way. They may be evidence of cognitive development in advance of linguistic development."

And, it certainly seems common enough for children in any specific phase of linguistic development to prefigure developments in the next, or even later phases, of linguistic development. For instance; Brown classifies the development of questions requiring "yes-no" answers as a characteristic of Stage III in a child's linguistic development. Yet, he reports that, in virtually all the children studied during Stage I, there was evidence that rudimentary questioning was going on. Certainly the children couldn't master the grammatical complexity of questioning. But they could use the rising inflexion characteristic of questions in most languages. Indeed, the one language in which the children did not seem to ask questions was Finnish, which lacks just this characteristic inflexion. Therefore,

it seems likely that in this case too, children both understand more than they for the most part say and understand certain notions long before they become part of their practice.

Now, if children at Stage I understand questioning, which doesn't manifest itself with any regularity until much later in the course of normal linguistic development; it doesn't seem all that unreasonable to assume, that prior to Stage 1, indeed prior to holophrastic speech, children also understand quite a lot about speech and speaking, which they are unable to express, for reasons of grammatical complexity and physical difficulty. And, if this is indeed the case, then, the notion that before a child talks it is uninfluenced by language, is entirely false.

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Quite the reverse: it is quite plausible to suggest that there is probably no stage in a child's life in which it is uninfluenced by language. And, if this is so of course, Piaget's earlier suggestion, that perception of objects and object persistence is simply a result of the physiological development of the organism in interaction with a given external world, becomes even more dubious than has been popularly thought. If awareness of language grows alongside an awareness of the world, it is not at all clear which is influencing which and it is highly probable that the two phenomena are in a state of constant interaction.

This suspicion is, I think, heightened when we look in greater

detail at the actual complexity of Stage I speech. We are inclined to consider the telegraph utterances of the child rather poverty-stricken and certainly, they are limited to three basic operations in the present tense. These are characterised by Brown as (pp 204-205):

- a. nomination - "this", "that", "see", "here", "there".
- b. recurrence - "more", "another".
- c. non existence - "all gone", "no more", "no".

But these are not unsophisticated notions; and a cursory examination of the two term relations expressed by the speaker of Stage I speech convinces us that here is someone who has already grasped most of the basic notions of our language. The minimal two term relations of Stage I speech are (pg 208):

1. Agent and Action.
2. Action and Object.
3. Agent and Object.
4. Action and Locative.
5. Entity and Locative.
6. Possessor and Possession.
7. Entity and Attributive.
8. Demonstrative and Entity.

The child has already worked out that there are objects and actions in the world. It has learnt that sometimes objects are agents, though usually agents are people. It has also learnt that things

have positions relative to one another and that they can be pointed out. The child has also grasped that objects have properties and, most interestingly, it has acquired the notion of things belonging to people. Surely this is a rather impressive list of achievements for the first few months of speech, even given the extraordinary learning abilities that children have.

The competence of the child at Stage I level becomes even more remarkable if we consider two term relations that are expressed by children on very rare occasions. Amongst the data examined by Brown are the following two term relations (pg 214):

1. Instrumental. ("Sweep broom")
2. Benefactive. ("For daddy")
3. Indirect object datives. ("Give me book")
4. Experiencer Datives. ("Adam see")
5. Comitatives. ("Go mummy")
6. Conjunctions. ("Kimmy Phil")
7. Classificatory. ("Mummy lady")

Even given that the use of these relations is occasional, the scope of a child's knowledge at this early stage of linguistic development is considerable, far too considerable to be explained in terms of his comparatively rudimentary practice. Yet, this is what those who say we know the world non-linguistically must be committed to doing. They must say that we know the world and then come to put words to it as we take our first painful steps towards acquiring a language. But this child knows so much of language, even when taking those first

painful steps, that such a hypothesis becomes impossible to seriously maintain.

Now it is sometimes argued, indeed it is so argued by Brown himself, that these relations are acquired so quickly because the categories of object, cause and so forth are acquired naturally, that is physically and non-linguistically, by the child during what Piaget calls the Sensori-Motor Phase. But, even a cursory glance at the above list must convince us of the improbability of such a hypothesis. Some of the minimal two term relations we can imagine being learnt directly from nature. We can imagine, perhaps too easily, children learning about the relations of; Agent and Action, Action and Object or Agent and Object, as a result of simple observation: ie. mirroring the world in consciousness or language. But, it is not at all apparent, that notions of possession, or the business of pointing at objects or events, could be so learnt. "Mummy sock", together with an appropriate physical response, shows a great understanding of human behaviour in general and linguistic behaviour in particular; after all, the notion of possession is not found anywhere in nature.

And, if we turn from the first list to the second, there are absolutely no relations on this list which could be acquired by simple observation of nature, unhampered by human influence: more specifically, by that linguistic influence which realists think must be subsequent to mirroring. Notions such as "Go mummy" and "For daddy" are rather sophisticated moves in the game of human interaction. So, of course, is the use of the imperative. Nothing

in nature gives orders in any obvious sense. Yet children at Stage I seem perfectly familiar and comfortable with imperatives. Children can go through quite a sustained piece of linguistic behaviour, at this stage, to try to get their parents to read a book or throw a ball. So, I conclude that if children speak so well at Stage I level because Sensori-Motor development has determined their cognitive structure, Sensori-Motor development is ingenious indeed to teach children a whole lot of discriminations, which no one believes, are inherent in nature at all.

But, the case against the Sensori-Motor Phase is stronger than this. For, if children did learn a lot of natural categories prior to acquiring any speech, it would, I suggest, be more difficult for them to speak grammatically, rather than less. Suppose I learnt there were separate and distinct objects in the world which engaged in various activities and I then learnt there were words, which for some reason which is not at all apparent, had to be matched to the objects. Surely my initial speech would be simply chaotic. I might arrange my adjectives, nouns and verbs in almost any old order. If I wanted to say that "Daddy kicked the ball" I might say; "Daddy kick ball", "Ball kick Daddy", "Kick Ball Daddy", "Kick Daddy Ball": or any other of the nine relevant mathematical possibilities. Yet this is precisely what children do not do. Children, at the level of Stage I Speech, more often than not, get their word orders exactly right. So, if Daddy kicks the ball, these children say "Daddy kick ball", not one of the other 8 possibilities. Hence Roger Brown's remark;

The child acquiring English in a huge majority of cases orders his words as they should be ordered if the semantic relations suggested by context to adults are what he intends. (A First Language. Pp 176.)

Yet there is of course no reason why, when we wish to say that Daddy kicked the ball, we use that word order. Other languages use different word orders to express the same thing, Japanese being a case in point. Yet, word orders are, of course, significant. "Ball kick daddy" has a very different meaning from "Daddy kick ball". It has a different meaning because we understand how word order works, and so do children, even at Stage I level.

This point has been clearly illustrated by a number of experiments. Bever, Mehler and Valian have done a very large case study on sentence comprehension in children. Their youngest subjects were aged between 2 and 3. In this group it was found that 95% of the subjects could clearly distinguish the change of meaning in sentences where word order was reversed. Thus, children between two and three could tell that a scene enacted before them, where say a cow kissed a horse, could not be described by the sentence "The horse kissed the cow", but could be described by the sentence "The cow kissed the horse". These sort of findings have also been confirmed in experiments by J and P. de Villiers, Harvard (1971); Fraser, Bellugi and Brown (1963); Lovell and Dixon (1963). Despite some variation in method and subject age the results of these experiments have been remarkably consistent; thus clearly indicating, that word order and its significance is both known and appreciated by children at a very early age.

In consequence, it seems to me very far fetched indeed, to go on insisting that children do not know anything of speech prior to speaking. If this were indeed so children would find it tremendously difficult, if not impossible, to get their word orders correct. Speech would just tumble out, pell mell and higgledy piggedly, as children frantically tried to match what they knew of the world with what they took various words and expressions to mean. Japanese children might use English word orders and vice versa. But, since this does not happen, it seems obvious that correct word orders, which differ from culture to culture, are not only known by the child when it begins speaking, but that even their significance is appreciated.

\* \* \* \* \*

I conclude, therefore, that there is very good reason to believe, that what appeared, in Chapter 1, to be strong evidence for non-linguistic comprehension of the world, turns out to be, at best, very weak evidence. Accordingly, even if a copy theory Realist had successfully shown that consciousness mirrored nature and that the language mirrored nature; such a theorist would still find it difficult to prove that our knowledge of the external world was non-linguistic. We begin learning language with our mother's milk. Our linguistic concepts grow up alongside our obviously expanding appreciation of objects and their behaviour. Our knowledge of what we call the "external world" does not precede language at all.

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Chapter 5.OBJECTS DO EXIST.

The position of the Metaphysical Realist is now quite untenable. He has failed to prove that consciousness mirrors the world, or that language mirrors the world. He has even failed to prove that we fit language to a world we come to know non-linguistically. His position could hardly be weaker. But we still, I think, hanker after Realism. We do want to say there are objects in the world. We do want to say that we experience the world. And, we do not wish to deny there would be a world if we spoke no language. But how are we to retain these convictions? Well here, I think, is a way which I wish to develop over the next four chapters. First, to our conviction that there are objects.

One response to showing that consciousness does not mirror the world might be to say, in a relieved fashion, "Well, at least we know consciousness. We do not know the world of objects, indeed, for all we know there may not be any objects, but of consciousness we can be certain". And, from here, it is but a short step to conclude that objects, which we do not know, are really only a species of the ideas we certainly know. This view is, of course, called "Idealism". It is also, I believe, unsound, for it tries to maintain that, objects on one hand and ideas and images on the other, are very nearly the same. But they are not the same. In fact, they could not be more different. It is to this point that I now wish to turn.

\* \* \* \* \*

There are a great many distinctions between images and objects.

For instance:

Objects:

- a. Are Public,
- b. They possess Primary Qualities,
- c. They possess Secondary Qualities.
- d. They possess histories.

Images:

- a. Are Private,
- b. Do not possess Primary Qualities,
- c. Do not possess Secondary Qualities.
- d. Their histories, if they have them, are very different to those of objects.

Consider these distinctions for a moment.

- a. Objects are Public; Images are Private.

What exactly do I mean when I say that an object is public and an image is private? Well, I mean that our behaviour, both linguistic and physical, is quite different in each case. Suppose we are sitting having coffee in my lounge; not wishing to talk of anything too serious, we begin to talk of the Silver Birch out the window. The first thing to notice is that we talk quite easily and naturally about the Silver Birch. We agree that it is a splendid specimen. You point out how beautiful its leaves look trembling in

the breeze. I add, that not only is it aesthetically pleasing but it is practical too, since it keeps out the worst of the heat in summer and keeps the room dark, thereby resting my eyes and making it easier for me to work. You point out that the trunk is unusually free of lichen and I add that the wood is sound and that the tree should last at least another twenty years. The Silver Birch is, in a sense, our mutual property and we discuss it with ease.

And, of course, we can include the Silver Birch in our physical behaviour too, if we wish. In the course of our conversation we can physically point to it. And we can also leave the room, stand beneath its shade, climb its slender trunk, pluck its slightly sticky catkins or even, if we have a mind to do so, chop it down. And we can both participate in these activities together. That is part of what makes us want to say that Silver Birches are public objects.

But suppose, instead, we talk of someone's image of a Silver Birch. Straightaway the situation is changed. For one thing, the image of a Silver Birch must be my image or your image before we can even begin talking about it; whereas the Silver Birch proper need not be either my Birch or your Birch. For another thing, one of us, the one who has the image of the Silver Birch, must then describe his image to the other before we both know what the image is like. We cannot sit casually in our chairs drinking coffee and making asides about an image of a Silver Birch in the same way as we can about the actual Silver Birch. Rather, we must both strain our attention as one tries to fix his image of the Silver Birch in his mind and the other strains to remember the crucial features of the imaginary tree

and perhaps tries to bring a relevant image before his mind. And, of course, we might have to debate and haggle over the relevant features. We might have to come to an agreement over whether it has leaves or whether some of the branches have been broken in a gale or whether there is a bird's nest in the topmost branch. In the case of a real tree our behaviour is not nearly so animated. We will seldom argue over the features of a real tree as we might argue to determine the features of an imaginary one.

And our physical behaviour is distinguished by its absence. We cannot point to an image of a Silver Birch, unless we point to a drawing of the image, which is not quite the same thing. We cannot climb the image of the Silver Birch, or touch it, or even chop it down. So instead we merely talk, something we are not compelled to do by the actual Silver Birch at all.

And, consider for a minute, the oddity of discussing an imaginary tree at all. In the unlikely event of someone wishing to initiate a conversation about his imaginary tree, we should, most likely, be either bored or appalled. Imaginary trees are not the sort of thing that we normally consider it worthwhile conversing about. After all, they are fantasy, and therefore of not much importance. The only sort of people likely to find them of any interest or importance are psychiatrists or novelists. They may well have a professional interest in the images people have of Silver Birches. The Role of Silver Birch Images in the Sex Life of the Middle Aged Man might well be a fit topic for a thesis or a best seller. But, for the most part, we are not interested in images of

Silver Birches, they are at the same time too difficult and too boring.

Thus, we distinguish between images of something or ideas of something on one hand, and things themselves on the other, in a whole host of ways, simply, because images are private and objects are public.

b. Objects Possess Primary Qualities: Images Do Not.

But, there are other important differences too. It makes sense to ascribe what Locke called "Primary Qualities" to objects, but not to images. Objects have size, shape, solidity, number and quantity of motion while images have none of these things. The Silver Birch outside my window may be big or small, but my image of a Silver Birch is not big or small. Even if I have an image of the large Silver Birch out my window, the image is not large itself, or small, but only an image. We do not have small images of small trees and large images of large trees, or even large images of small trees and small images of large trees, we simply have images, and the imagined objects may be of any size. By the same token, images themselves do not have shape. The square block in the centre of the floor has shape, for it is square, the block in my imagination has shape for it too is square, but my image of the square block is not, therefore, made square by the shape of the imagined object. And, not to press a point to tedium, the square block in the centre of the floor is solid, but my image of the square block is not (though in my imagination I can stub my toe on a square block). Similarly, images

do not move, though objects do. I can hurl a square block through the air at eighty miles per hour, but I cannot hurl an image of a square block through the air at eighty miles per hour. And even number, which we are tempted to say that images have, works strangely. I can see ten balls. A ball is a physical object and therefore there can be one or many balls. But, if I have an image of ten balls, then I only have the one image. But suppose you say you have ten images of ten balls. Then images do have number, especially if each of the ten images has different contents. In one image the balls may be red and in another blue and so forth. But, can we have ten images of the same balls? Well, I really don't know. For, every time we have an image of ten red balls, we may be having a new image or, we may simply be having the same old image all over again. It's all a bit of a nuisance really and we wouldn't be likely to waste our time speculating on such a matter. But, if we saw ten red balls today, we might speculate whether they were the same balls as yesterday and then we could resolve the problem, at least in principle. But, I do not see how we could resolve, even in principle, whether we were having ten images of the same red balls, or ten images of ten different sets of balls, if all balls looked the same. So, while we may want to insist images fall under the category of number, they certainly do so in a different way from objects.

All in all, there is really little point of relation between images and objects. The Primary Quality words, which we use in relation to objects, just don't attach to images at all. Images may not have shape, but they are not shapeless as a cloud or a human frame might be shapeless. Images might not be solid, but they are

not liquid or gaseous either, they are not to be compared to water or cloud. Images might not have quantity of motion, but they are not in a state of absolute rest. For all the normal opposites of the primary qualities, except sizelessness, actually also apply to phenomena in the physical world. "Shapeless", "gaseous", "liquid", "completely still", are all adjectives, or adjectival phrases, which apply to real entities, though I don't mean to imply that images are unreal entities. In this way there is a complete split between the category of images and the category of objects.

c. Objects Possess Secondary Qualities: Images Do Not.

Much the same situation applies to the Secondary Qualities: taste, odour, colour, touch and sound. All objects have some taste, though most of us do not sample the gourmet thrills of stones and wooden blocks. But a piquant image, literally speaking, is an impossibility. An odoriferous fence post might strike us as an overstatement, but we recognise that dogs find the subtle bouquet of fence posts almost irresistible. But an odoriferous image of a fence post? Blue cars and blue lakes are a dime a dozen, but blue images are nowhere to be found, though as before, I can have an image of the most sublime blue. Doors squeak and dogs bark but images do neither. In fact, again, none of these words really connect to images at all. We cannot, with any justice, describe an image as colourless, tasteless and odourless, though we might use that description of a gas, or a liquid, or even, at a stretch, a glass tube.

d. Objects and Images have Different Histories.

Images belong to a completely different category to objects and the two orders simply cannot be pushed together. This is particularly evident if we devise a history for, first a tree and then, for an image of a tree. The Silver Birch outside my window, for instance, was planted in 1955. The winter of "56", however, was very wet and it almost died. This led to slow growth for a time, but between 1958 and 1964 it grew rapidly as it used up the bone dust which had been buried around its roots at the time of planting. Between "64" and "68" there were several cold windy summers and this, in combination with an exhausted soil, led to another period of slow growth. That is why the tree looks woody and thick in the middle of the trunk. Thereafter, however, the tree grew well, assisted by intelligent applications of nitrogen fertilizer and it has now reached a height of thirty five feet.

But the history of my image of a Silver Birch is rather different. I suppose I first started having an image of a Silver Birch when I went to school. I found school very difficult and every afternoon, when I returned home to my grandmother's, I used to climb the Silver Birch and sit there, listening to the wind in the branches, completely invisible to the world. I felt safe up the tree, so, after a while, whenever I was frightened by the teacher or bullied by some other child, I used to think of the Silver Birch. Sometimes I used to think of it so hard I could almost smell it. Thereafter, the Silver Birch often used to crop up. Sometimes I would summon it deliberately, but, at other times, I just used to

find myself thinking about it, and if there was nothing obviously wrong, I had to think hard to find out what the problem was, because the Silver Birch rapidly became a signal that I was worried or upset. Quite recently, alas, things have changed. The familiar tree is irretrievably altered. Formerly the Silver Birch was always in full leaf in my image, but now, its branches are bare and its trunk is a muddy grey with patches of orange fungus and dull green lichen. It makes me kind of desperate. I need that image as much, if not more than, I need my arm.

What we are dealing with here are two radically different types of histories. One history mentions such things as the weather, fertilizer soil types, growth patterns and so forth. It talks about a tree that is planted and is progressively transformed as part of a natural process. But soil types and fertilizer are not at all relevant when it comes to the history of my image of a Silver Birch. Completely different things are relevant, such as my emotional state and the social environment in which I found myself at various times. And, of course, my image of a tree does not behave according to any natural laws. It was never planted; it never even grew in organic fits and starts. It came into being, more or less complete, and remained unchanged over a long period of time; and when it did change, it did not change in response to the weather or the seasons, but in response to my peculiar emotional circumstances, something unlikely to influence a real tree in the real world. The two histories could scarcely be more unlike.

My Silver Birch image is, of course, a little unique. Most

images do not really have a history at all. They simply appear or disappear, though perhaps a certain background might be provided for most images. But, without exception, trees do have histories. They endure over time, they were here yesterday, are here today and will be here tomorrow, barring certain circumstances. But the image that I have today of a particular Mill Pond, near Boughton-on-the-Water, certainly never occurred yesterday and probably will not occur tomorrow either. In other words, if I see a tree I know it has a history simply in virtue of its existence, but having a certain image in no way guarantees that the image has a history. So, in this respect too, images and objects are quite different.

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Thus, if one of the conclusions of the first four chapters is that objects must really be a species of image, that too is obviously mistaken. (Perhaps this is the mistake George Berkeley made.) The categories of image and object are so radically different that they could not possibly be confused. Objects are public, images are not, objects have Primary and Secondary Qualities, images do not; and both objects and images have different sorts of histories.

But, an idealist might now wish to say, that while he accepts that there is a distinction in the common language between images and objects and, that he wants to retain this distinction, what both images and objects really are, are outlines or reflections on the mirror, ie. ideas or images. But, we have just seen that images and objects are not at all the same. They are not even the same in

virtue of both being reflections in a mirror. (A tree which is a reflection in a mirror, or even a retina, is simply not a tree.) So how can the idealist claim they are? Well, I suggest that he can only do so if he has changed the meaning of the expressions "image" and "idea"; which were formerly defined, in part, by their relation to objects, but now, seem to include objects. "Idea" has taken on a new meaning. But what does this entirely new expression "idea" mean? Well, I for one, have absolutely no idea. I thought I knew what the Idealist meant, but it turns out I do not. But I know perfectly well what the old expression "idea" or "image" means and I know perfectly well what the expression "object" means. I can make perfect sense of talk about images and objects and the differences between them. BUT, I can make no sense at all of talk that says they are: "really", "essentially", or in any other way the same. THEREFORE OBJECTS, I BELIEVE, EXIST.

Thus, the first part of our Realist view is restored; namely that there is a world and a world full of objects at that.

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Chapter 6.SEEING IS AN EXPERIENCE.

The world then does contain objects. And the Realist, we have seen, is disposed to say that we become aware of that world of objects via consciousness. That is, he claims that part of what we are doing when we say we SEE something, is referring to an experience. This I believe to be true. The Realist's point, however, is hotly disputed by many philosophers. Amongst these philosophers are Ludwig Wittgenstein and Gilbert Ryle.

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Suppose you and I are standing looking out my front window and I assert there is a red Ferrari across the road. I cannot provide any evidence, in any direct sense, that the Ferrari is indeed red. All I can do, if you question my contention about the colour, is say; "Of course it's red. Can't you see it man?" In this sense, assertions about colour are neither verifiable nor falsifiable; they are simply "bedrock" or "protocol" statements on which our discourse is based. We must achieve agreement about these basic expressions before any language games can be played. And there is no difficulty about achieving such agreement. Whatever we see, we are prone to behave in certain ways and develop certain dispositions. This behaviour and potential behaviour, it is argued, constitute the evidence for our claims to see. Foremost amongst this evidence is the coherence of our language games. If you and I can, or do, have an intelligible

and consistent conversation about the red Ferrari parked outside on the road, then it is reasonable to assume that you see it as I do. If we both agree that it has "neat" wire wheels, that the ten foot <sup>e</sup> ariel is rather "ostentatious" and the lime green stripe running down the side is rather "loud", then it would be unreasonable of me to ask; "But do you really see it?" For none of these features are necessarily features of cars in general, or Ferraris in particular, so, since word meanings do not provide us with the basis of our agreement, it can only be presumed that we see the same thing. Similar linguistic behaviour is an infallible guide to seeing the same thing.

But language is not the only evidence we have for "seeing". We also have our physical behaviour, or our proneness to behave in certain ways, which provides insurance against a deceitful speaker. Of course, there is nothing to stop a totally blind man from speaking, quite intelligibly, about the red Ferrari with the wire wheels. Yet, if the same man walks into the red Ferrari when crossing the road, or climbs into the boot after clearly stating his intention to go for a spin around the block, then obviously, no amount of linguistic competence is likely to convince us that he can actually see anything. To justify a claim to see the red Ferrari we must behave appropriately toward it, and have a disposition to behave appropriately toward it, whenever we encounter it. We must jump out of the way when it drives down the street at one hundred miles per hour, we must go to the garage and open the garage door when we want to go to the store for a packet of Camels, and so forth. So, if we see something, we behave appropriately at the time and we have the

capacity to behave appropriately whenever we see it in the future.

Our behaviour, both physical and linguistic, provides strong, if not conclusive evidence, that we in fact see. Indeed, there are some philosophers who maintain, not merely that behaviour provides strong evidence for seeing, but that all a claim to see really amounts to, is a claim to be able to play certain language games and to have <sup>s</sup>acquired certain dispositions. One of these philosophers, Ludwig Wittgenstein, claims that the "beetle in the box cancels out."

---Suppose everyone had a box with something in it: we call it a "beetle". No one can look into anyone else's box, and everyone says he knows what a beetle is only by looking at his beetle.---Here it would be quite possible for everyone to have something different in his box. One might even imagine such a thing constantly changing. --- But suppose the word "beetle" had a use in these people's language? --- If so it would not be used as the name of a thing. The thing in the box has no place in the language game at all; not even as a something: for the box might even be empty. --- No, one can "divide through" by the thing in the box; it cancels out, whatever it is.

That is to say; if we construe the grammar of the expression of sensation on the model of "object and designation" the object drops out of consideration as irrelevant. (Philosophical Investigations. No. 293.)

Language games, Wittgenstein seems to be asserting, can be played irrespective of the contents of the box; and this seems to imply, that it is in some sense irrelevant what I see, as long as my behaviour is appropriate. Indeed, Wittgenstein seems to be saying, that even if I see no Ferrari, but behave appropriately, then I have indeed seen a Ferrari.

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Gilbert Ryle, on the other hand, seems a little more tentative in his claims.

When a person is said to be watching, scanning or looking at something, listening to it or savouring it, a part, but only a part, of what is meant is that he is having visual, auditory, or gustatory sensations. (The Concept of Mind. Gilbert Ryle. P 194.)

Instead of claiming, that what we might like to call "the scene immediately in front of our eyes" is irrelevant, Ryle goes on to claim that "seeing" is a success word. He means two things by this. FIRSTLY: he means to indicate that, when I have seen something, I have performed a certain task successfully. That is, when I claim to have seen something, I have looked for it and found it. I peer into the undergrowth looking for a deer; then I SEE the deer and I have successfully completed a task. SECONDLY: he means to indicate that I can only see things that are actually there. When I walk out my door in the morning I see the birch tree, but only because there is a birch tree to see. If I walked out my front door and saw a gum tree, I would, <sup>have to change my claim and say</sup> at some time or other, that I had had an hallucination, during which I believed I saw a gum. Thus, when I see something, I have seen something that is there to be seen and so, score a success.

Now Ryle may not have been satisfied with the nature of this analysis. But, whether he was or not, a few years later in Dilemmas he clarified his position, by saying, that "seeing" is a terminus word. This is an important move which, if correct, locks the notion that seeing something is having some sort of experience, away in the closet of history forever. It is this illuminating claim that I now

wish to discuss.

Specifically, Ryle compares the concept of "seeing" with the concept of "winning". We run a race and we win it, we look for a deer in the undergrowth and we see it. Now the interesting thing about winning is that winning is not any sort of activity. It is only in the loosest sense that we can say of anyone that they are "winning the race". Strictly speaking, we should say that Smith is leading the race; and if he continues to do so for another lap, he will win the race. In this sense "winning", or rather the verb "to win", is a verb without an imperfect tense and with a co-extensive present and past tense. It is perfectly proper to state that he won the race, or to predict that he will win the race, but it is illegitimate to claim he is actually winning the race.

Now, as Ryle implies but does not make explicit, the verb "to see" is in exactly the same position. If you are standing at the window gazing at the bleak winter landscape and someone asks you what you are doing, you are likely to reply, "I am looking at the birches". But you will not reply; "I am seeing the birches". "Seeing" is an inappropriate expression in this case. When asked what you are doing you can reply you are: walking, resting, laughing, running, digging and so forth; but you cannot answer you are seeing. Hence, to say that you see something, is to claim to have already done something, to claim that you have finished looking for such and such: or, that although you weren't looking for such and such, you saw it anyway. Hence, when you say you see a chicken, a duck or a Silver Birch you are not claiming to be doing anything at

all. So seeing is not any sort of process, or any event in such a process, though we casually think of it as such. Seeing can't be an impression, or a series of connected impressions, because seeing, like winning, is not an action and does not legitimately take place in time at all.

Consequently it would seem that Wittgenstein's dispositional account of seeing must be right; for if the claim to have seen a birch tree is not a report of an experience, as Ryle seems to have shown, then seeing simply must be no more than a matter of performing certain actions. It must be a matter of speaking and behaving in a certain way and also a justification for certain future speech and actions. It must be a matter of discussing the fresh spring growth on the birch tree and saying that, nevertheless, you will chop it down this Christmas. So perhaps Ryle should not have been so timid about his "visual sensations". Perhaps he should have said in The Concept of Mind, what he implied in Dilemmas, that seeing has nothing to do with sensation at all.

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But surely, now we are going too far. For, it seems to me, there are quite a few occasions when seeing, by any of Ryle's tests (getting it right, or terminus of a task verb and so non continuous) is not a matter of success at all.

Seeing Always Involves an Actual Object.

The best way into this matter is to look first at a success which is no success at all; seeing a bent stick under water. What I am interested in here is, of course, the mundane and common place illusion; an illusion with which we are all so familiar, we are not for a moment taken in by it. For instance, I might be sitting by the river fishing and dangle the tip of my rod in the water and observe that the part of the rod below the surface of the water seems bent. Exactly what sort of a success is this?

Well, on one level, it is a perfectly straightforward success. If you or I, or anyone else for that matter, plunge the tip of a straight rod beneath the surface of the water it certainly does "appear" to be bent. Indeed, if my memory serves me correctly, there is a slight dislocation of the rod just beneath the water's surface, so that, it seems the submerged part of the rod is imperfectly joined to the rest of the rod. However, if I were to claim that I could not "see" that the rod "appeared" bent, or bent and dislocated, I could legitimately be regarded as either a liar or a man with terrible optical problems. I "succeed" in seeing the rod bent by the water, because anyone in my position would see the same thing.

But, in quite another way, I have had a false success, for no one actually believes that the rod is in fact bent by the water; unless the rod is very flexible and the water is particularly fast flowing. The rod is, in fact, straight; it is only the light passing from the less dense medium, air, to the more dense medium,

water and being refracted at the surface, which causes the rod to appear bent. Therefore, if seeing is a success word, I have seen nothing, or I have seen a straight rod. But I could swear that I have neither seen nothing, nor a straight rod. I admit, on the other hand, to having seen a straight rod which appears bent, or bent and dislocated, under the water; but I deny strongly seeing a straight rod, at least so long as the rod is under the water.

(The temptation of course, at this point, is to say that we see the appearance of a bent rod. But this is grammatically incorrect, for we do not see "appearances". Moreover, if we were to see the appearance of the rod, we would be tempted then to say that the rod was made up of two parts, the rod itself and the appearance of the rod. This too is foolish, or at least dangerous, though it does help a little to illuminate the expression "the real rod". The real rod is the rod as we see it in normal light. The real rod is straight because it looks straight under normal light, it looked straight yesterday under normal light and it will look straight tomorrow too, unless it is broken, or stored in a careless fashion. The danger comes when we go further and say the real rod is the rod as it "appears" normally: so that reality is just the most frequently occurring of appearances, or some such thing.)

But this does not help me with my problem about success; for even though I know a little more about the temptations inherent in the language, I still cannot deny, that in seeing the bent rod I am having a false success, which is a logical contradiction. I may wish to renounce my observation by saying that the rod "appears" bent;

but if someone asked me to justify my claim that it "appears" bent, I should have to give the normal explanation, namely: "Out of the water the rod is straight. See? Now when I plunge the tip of it beneath the surface of the water, it looks bent at the interface between air and water. You can see that can't you? And, if I pull the rod tip back out of the water, it is straight again. See? That's why I say it appears bent under water." But anything more direct than this, I cannot say.

We must, I think, admit that we are in a terrible muddle. We want to say that we have had a success and a failure simultaneously. We want to say that we have succeeded because we see what everybody else sees; but we want to say that we have failed because, when the rod is under water we do not see that it is straight. So seeing a bent rod under water is, in part, not a success.

And this is by no means the only circumstance in which "seeing" appears something other than a success. Some obvious counter examples are in the field of the paranormal. For instance, has someone who sincerely believes they have seen a ghost had a success or not? Does a man who sees his wife on a ship in the middle of the Atlantic, when she is in bed in London at the time, score a success? If they do, the fraternity of those who claim that "seeing" is a success word, should hastily join the British Society for Psychological Research. Otherwise they will have to be like the rest of us and claim that the people concerned were simply "seeing things"; a perfectly common expression, which distinctly disavows that seeing is any sort of success at all.

And this is only one of quite a number of common expressions which disavow the success of seeing. For instance, let us suppose I am on a rugby field. It is a hot autumn day and the sun is shining in my eyes from just above an adjoining line of poplars. The inside of my lungs feel raw, my temples are throbbing as though I have a high fever and my calves are twitching with fatigue. My side wins the scrum. The ball is passed through several hands and I run tentatively on to the pass. Suddenly there seems to be no one in front of me and I can see the faint outline of the opponent's goal line on the rough grass just ahead. I tuck the ball under my arm and work my legs, rushing towards the goal line. As I reach out to score the try I am aware of a terrible blow in the left hip. I am flying through the air. I feel my back and my head strike the hard ground. I lie there, not moving, vaguely aware of the sounds around me, stars swimming before my eyes. I am "seeing stars". Yet I cannot possibly have succeeded in seeing anything that is actually in the sky. It is a fine afternoon, not a cloud to be seen. There are a few birds, the odd yellow leaf floats lazily towards the ground, but there are certainly no stars. How did this expression manage to find its way into the common language? Unfortunately, I have no real idea whether people actually do see stars when they are knocked out. For all I know the expression could be entirely metaphorical. But it seems to me that I could certainly find out whether it was metaphorical or not. I could simply get someone to hit me over the head with a handy blunt instrument and, if I lay there only vaguely conscious of my surroundings but seeing something that resembled Van Gogh's *Starry Night*, I should certainly claim to be literally "seeing stars". Yet I would not be claiming a success in the usual sense of the word. I

would not be claiming to have seen stars in any sort of actual sky. If I was claiming any sort of success, I would only be claiming to have successfully had a normal response to a blow on the head. I certainly would not have succeeded in seeing something I was capable of looking for.

But, if I am unsure as to whether the expression "seeing stars" is a metaphor, I have no similar uncertainty about the expression "seeing red". Now usually, of course, the expression "seeing red" is a metaphor. If I approach an earnest and ardent Catholic, stick my head in his face and say; "The Pope is the spawn of the Devil!" he may well knock me to the ground. By way of explanation he might well say later; "You shouldn't provoke me like that. I saw red when you said that truly awful thing about the Holy Father." But the expression "seeing red" is not just metaphorical. Sometimes, you quite literally "see red". The scene in front of your eyes simply disappears, though your eyes are open, and all you see in front of you is a red mist. At the same time you are completely out of control and ready to beat the living daylights out of anyone in the vicinity. But there is no success involved in seeing this red. "Seeing red" is more of a failure than a success; for you cease seeing the people and the objects in the world and see nothing at all, except red.

And if this example seems improbable or exceptional, let us turn to another situation, which I imagine is much more common. It is a warm sunny day. You are lying on your back in an orchard watching the clouds racing overhead. Every now and then you are faintly

disturbed by the thud of a falling apple or the hum of a bee flying around your head. You close your eyes. You see a beautiful red glow. Presumably it is the sunlight filtering through the skin of your eyelids. You close your eyes tighter. The colour changes from red to purple, then to purple black and peculiar patches of light whirl and flow within the blackness. You are seeing colours. But what sort of success is this? We do not normally see just colours, but only coloured objects. We see red fire engines and Purple People Eaters. Moreover, it seems absurd to say; "I see such and such only when I shut my eyes," except, of course, in situations when you are talking about imagining or dreaming or remembering. But we are neither imagining nor dreaming nor remembering. I can imagine my own drab automobile painted a livid purple, or dream of the eyes of "She Who Must be Obeyed", or remember the blue-black colour of the roof of the tomb of Rameses III; but that is not at all the same as seeing purple before my eyes when my eyes are closed.

And, of course, there are a great many other examples as well. Gilbert Ryle confessed himself baffled by after images, for they certainly are no sort of success. Mirages, which the dictionary tells me are illusory images produced by atmospheric conditions, are mid way between success and unsuccess; for we would not see them except for local peculiarities of the light, and in that case they are successfully seen, but what we do see, a lake in the desert or a city in the sky, are not actual lakes or cities, and so seeing them is no success at all. Hypnagogic imagery, usually produced by hallucinogenic substances, is also a candidate for seeing with the eyes closed, though what we "see" is more like what we see in a movie

than what we see in an orchard, when we shut our eyes on a sunny day.

Thus, it appears, that in quite a few cases we use the word "see" where a success is either dubious or non existent.

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But there is also good reason, grammatically speaking, to believe that the verb "to see" is more than a terminus expression.

Seeing is an Ongoing Process.

Consider the following situation. We are out hunting and I say to you;

"Do you see the deer in the clearing?"

"No. Ah yes! Now I see it."

In the above use seeing is both a success and a terminus. But just think of some of the other ways in which it is used.

"Do you see the deer in the clearing?"

"Yes."

"Well watch it closely." Then after a pause; "Can you still

see it?"

"Yes."

"Could you see it between my first question and my last?"

"Yes."

"All the time?"

"Yes."

Here seeing seems to be an ongoing process. The watcher is both looking and seeing. Of course, again he is scoring a success, in that he is detecting something that actually exists; but seeing is not in this case a terminus, for it seems to be continuous. I saw the deer five minutes ago and have been watching it ever since. But I have not been watching it without seeing it, for watching implies seeing and does not exclude it.

And look at the whole host of observation words which imply that "seeing", far from being a terminus, is an activity. Whether I am observing, scrutinising, perusing, examining, viewing, or whatever; part of what is understood by all these activities, is that I am seeing the object of my activities. I cannot peruse a document I cannot see, or examine a document I cannot see. I certainly can't be said to view a movie if I am blind, even though my public behaviour is the same as the behaviour of a normal member of the viewing

public. So, while it is improper in response to the question; "What are you doing?" to reply; "I am seeing x," it is also improper, when you are perusing or examining a document, to deny that you can see the document you are perusing or examining.

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Thus the grammar of seeing is plainly contradictory. In some instances it is perfectly plain that "seeing" is a terminus word and not an action word at all. But, in other instances, the grammar clearly indicates that "seeing" is an action word. This seems intolerable and unacceptable. But why does it seem so? I suggest that it seems this way because we are in the thrall of a certain notion; the notion that one over all pattern will emerge from the way the language works. We anticipate that when we discover this pattern the last word will have been said about our world. But this, I suggest, is plainly not the case. Certainly "seeing" is a success word, certainly it is a terminus word, but must it only be those? Only a misplaced sense of logical rigour would insist that it must; and our language, made up as it is of so many games, is not in the least rigorous. Grammatically the verb to see fulfills a unique role; which of course should come as no surprise, since if it did not, its very redundancy would probably have led to its elimination from the lexicon. And, if it does fill such a unique role, it is at least possible that part of what is meant by a claim to see, is to claim to have had a certain experience. And, more than that, I suggest it often does claim just that.

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Now the failure of "seeing" to be either a success word or a terminus word or both, in all cases; and the implication that seeing is an ongoing process in some cases, as well as being grammatically irreducible; strongly indicates that seeing might be an experience. If we add the additional assumption, that experience adds up to something like having an image and that having a certain sort of image suggests certain particular forms of speech, then another special problem is solved.

Consider again the bent fishing rod under water. As already illustrated we really don't quite know how to deal with this phenomenon in our everyday speech. We cannot say we see a bent fishing rod, for the rod is not bent. We can say that the rod appears bent, but when asked to justify this claim we want to say that we see that it appears bent. Our grammatical struggles here are best accounted for, by saying that we are trying to fit our language to a certain image of a state of affairs. For, when you say that the fishing rod is bent under water I know perfectly well what you mean. I have done a lot of fishing and know perfectly well what rods look like when their tips are immersed beneath the surface of a stream or pond. I don't have to go through all the possible meanings of "bent", from a "bent drainpipe" to a "bent cop", to work out what you are saying. Your words alert me to the situation as it stands, whether you use "looks" "appears" or "is" to describe the situation. Your words are simply a cue to bring the right situation, the right image, before my mind. The delicacy of the grammar is really not so

important.

And indeed, I am inclined to think that a suitably relaxed examination of bent fishing rods under water reveals that we use words to: provoke, or evoke, or describe, certain experiences.

Suppose I take my young son on a fishing trip and the fish aren't biting. I plunge the tip of my rod beneath the water and say:

"Look how the tip of the rod bends under the water." If the boy is not totally consumed by boredom at this stage he might well say:

"Is it really bent?" Then, with a grand flourish, I will pull the rod out of the water and say:

"No. It's as straight as ever."

Now, in all probability, this would be the end of the conversation, although more has been left unsaid than has been said. But suppose that the boy has an unnatural curiosity and says:

"How do you know it wasn't bent under the water? Perhaps it straightened as you pulled it out, just like it straightens when a fish gets off the hook." What exactly am I to say now?

If I have some scientific knowledge I will probably tell him about refraction. I will tell him that we see things because of the light that travels from the sun; and that the light usually travels

in straight lines. However, if the light hits a very shiny surface, like a mirror, it bounces right back at you and you see a reflection; and if light passes from one sort of clear stuff to another, it tends to bend because of the different density of the two sorts of clear stuff. Hence, when light passes from air to water it bends and that is why the stick looks bent.

Now probably the child will accept this. It is, after all, a tidy picture. He might even get very excited about this new thing he has found out about the world. I have given him a scientific explanation, which is probably what he was looking for. But, it should be noted, I have explained nothing to him about grammar.

Alternatively, not wishing to produce yet another scientific realist to corrupt the world, I might say: "Well, we say the rod is straight when we hold it up in the air like this and the light is normal. So, when we put the tip of the rod under the water like this, that is not normal and so we say that the rod looks bent, but is really straight. You know how a lot of things look strange from time to time. You know when you look along a very hot road in summer and, at a distance, the surface is all silvery and watery looking and the cars coming along the road seem to be floating above the road and, for a little time, seem not to be moving at all. Well, we don't say that the cars are really floating above the road without moving, because soon they begin to move towards us and then we see that they are not floating above the road, but that their wheels are on the tarseal, just as they are when it is not hot. And, if you don't want to say that the cars really are floating in the distance, you don't

want to say that the rod is really bent under the water."

And what have I been doing here if not trying to provoke an image? What is the purpose of my description of the cars if it is not to provoke an image. It is certainly not to describe how things actually are, for cars do not "float above the road". And, if part of what we use words for is to provoke pictures or images, that explains why, in the case of the bent stick under water, grammar does not matter. We all know what a rod looks like under water, we all know how to determine when and if the rod is straight. Together, the image and the given theory, namely that a straight rod is one that we judge straight in normal light and in a uniform medium, are enough to allow us to know what is meant when someone says the rod is bent under water.

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All this, it seems to me, leads us to the conclusion that the element of experience cannot be expelled from seeing; and if the disposition theory wants to draw support from Ryle it cannot do so. Consequently the disposition theory will have to stand on its own two feet if the element of experiencing is to be banished from the notion of seeing. But I do not believe it can do so.

Of course, nobody denies that when we see something we may behave in certain ways and that we develop dispositions to behave in certain ways. But, those who maintain that this is all seeing involves, run into certain problems. **FIRSTLY:** it seems perfectly

sensible to assume that there are certain things we see, towards which we never behave discriminatingly. Every time I drive to and from town I pass many gardens which contain trees and since I seldom, if ever, stop on the way to town, my behaviour never indicates that I have seen them. **SECONDLY:** it is not unreasonable to suppose, that though I see many of these trees as I drive to town, I have no disposition to act towards them at all. Indeed I cannot tell you, at this moment, the name of one tree in a private garden along Fitzherbert Avenue. Consequently, since I neither behave discriminatingly towards these trees, nor remember them, it must follow that I have not seen them, any of them, which is ridiculous. I know perfectly well that I have seen at least some of the trees in private gardens along Fitzherbert Avenue; and this doesn't even take into account that I may claim to have seen certain trees but not noticed them, a claim which disavows possessing most, if not all, of the dispositions of those who normally see the objects in question.

But, it is not just that we fail to behave discriminatingly or develop dispositions towards some of the things we see. I suggest, that in fact, we fail to behave discriminatingly or develop dispositions towards most of the things we see. Passing through the countryside in a train we see many things. Yet we do not stop the train in order to behave discriminatingly, or even talk about most of the features of the passing landscape. When the trip is finished we remember only a few of the more noticeable things we have seen. Yet it would be ridiculous to assume, in consequence, that we had seen hardly anything during the course of a train journey lasting several hours. And the situation is the same in almost all cases, except in

our own home or immediate environment. We certainly have a disposition in relation to the Silver Birch on the front lawn or the big Oak in the local park, for they are part of our lives. But the vast majority of trees are way beyond our influence. We do not engage in frantic activity as a result of seeing each and every tree. We do not climb or chop down all the trees that we see, or even most of the trees we see. In many respects, manifesting neither behaviour nor dispositions, is a more common accompaniment of seeing than vice versa.

Thus, once again, a counter theory to the notion that seeing involves experience fails to cover all possible cases. Indeed, in this instance, it seems to fail to cover a great many, if not the majority of cases.

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I therefore conclude, that while I may not have proven that a claim to have seen does, amongst other things, involve a claim to have experienced something; I have certainly proved that a claim to have seen involves more than either successes, terminii or dispositions. I have also shown that linguistic analysis suggests seeing is a process in certain contexts. It therefore seems to make good sense to suggest that seeing is something very like experiencing an image. So the Realist's suspicion, that we experience the world, is also confirmed.

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Chapter 7.PRIVACY IS INNOCENT.

If we do in fact experience the world we are faced, or seem to be faced, with a considerable problem. For experience tends to interpose itself between us and the world. But once it has interposed at one point, experience tends to rush in at all points. Pushed to a logical extreme (solipsism) we are then inclined to say that we know only our own consciousness and nothing of the world; that we know no facts at all, except facts of consciousness.

For a whole host of reasons this solipsistic view has come to be rejected in the twentieth century. Instead of everything being private many philosophers have been inclined to suggest that everything is public. Language is public, facts are public, experience is public. This is, I suggest, a simple over reaction. Certainly language is intrinsically public, for we can only learn a language if we have direct knowledge of, and contact with, other people. This on its own is sufficient to refute solipsism. But it does not follow from this that all facts, including facts of experience, are public or that all facts are known on public "grounds". Indeed, I suggest that there are "grounds" other than "public grounds" for certain facts. It is this thesis that I now wish to defend; with the added suggestion, that what I call "private grounds", are actually so widespread that they do not constitute the insidious danger commonly thought.

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In the twentieth century there have been at least two notable attempts to eliminate "private experience" as the basis of any language. Both these attempts fail, in my opinion, for, try as they might, neither the Logical Positivists nor Ludwig Wittgenstein can promulgate a consistent view of language which satisfies our intuitions. For intuition demands that a whole range of statements be statements of fact. These statements range from statements in science concerning objects and movements, through everyday statements concerning people and actions, to statements concerning people's emotions, sensations and so forth. That is, we expect that it is a fact that this is an iron bar, it is a fact that he is running down the road and it is a fact that I am in pain. Yet, neither Wittgenstein nor the Logical Positivists, could allow all these statements, in all their possible forms, to be empirical statements.

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#### Logical Positivism and "Protocols".

The Logical Positivists held that an empirical statement had two essential features. It was translatable into logical equivalents; and at least some of those logical equivalents specified operations, which, if carried out, allowed us to verify or falsify the statement concerned. Thus, the statement "this field is 100 yards long", had, as a logical equivalent; "the length of this field is the same length you would get if you laid 100 yard rulers end to end". This

latter statement stipulated an operation, which if carried out, would enable us to verify or falsify the statement "this field is 100 yards long". Of course, there are a number of other methods of verifying the length of a field. I could use a theodolite or a tapemeasure, or if a rough estimate was sufficient, I could simply pace it out. All these methods could be framed in statements equivalent to "this field is 100 yards long."

But, when we come to the statement "this book is red", there are no obvious equivalent statements: if the book is indeed red then it is simply red, and that is the end of that. Nor are there any operations we can use for verifying the statement. The instruction "look at it" hardly constitutes the specification of an operation. Thus, if empirical statements had logical equivalents and were verifiable, then the statement "this book is red" was not any sort of an empirical statement at all.

What sort of a statement was it then? Well, Carnap and Neurath at least, maintained that it was a "protocol" statement; part of the basic vocabulary of a language, out of which more sophisticated talk could be evolved by applying rules of transformation and equivalence and so forth. Primitive observation statements played a somewhat similar role in this theory to axioms in geometry; and like axioms, they were neither true nor false. For this reason it was accepted, that statements such as "this book is red", were not really factual statements at all. (A.J.Ayer and others differed from Carnap and Neurath on this point but examining their position is not relevant here.) Now it seems wildly improbable to me, and indeed to most

people, that it is not a fact whether this book is indeed red or not. But, much more important, when pressed a little, it became clear that nothing in the common language could readily count as a factual statement for Logical Positivism. For there are very few statements in our everyday language that have logical equivalents; and very few statements, if any, suggest operations by which their truth or falsity can be determined. Consider the following statements.

- a. He is running down the road.
- b. He played a forehand drive down the line.
- c. He will sneeze shortly.

Now, I suppose I can come up with something close to "he is running down the road." I could say something like: "he is moving quickly over the ribbon of tarseal raising his knees high and landing on the balls of his feet." This is not a bad equivalent; except for one thing. Not all runners land on the balls of their feet. Some do, most, I suspect, do not. But then the classic difference between walking and running was considered to be that runners landed on the balls of their feet and walkers on their heels. Certainly, if you participate in a walking race you must "heel and toe" as the saying goes. Speed is not a crucial factor either; because I have no doubt that a good few walkers could walk five miles faster than I run five miles. And no amount of work with test tube, scales or ruler will help here either. Strictly speaking, it is impossible to verify whether or not I am running in the way the Logical Positivists

stipulated.

Translating "he played a forehand drive down the line" leads us into terrible strife. Its logical equivalent must be something like this: "He hit the tennis ball, which was on the forehand side of his body, down the outside bounds of the singles court on that, his forehand side and towards his opponents' back hand side." This is only the muddiest of equivalents and is so clumsy as to be unthinkable. And again, no operation is prescribed.

Even the prediction "he will sneeze shortly", which looks easy enough on the surface, is not actually that easy at all. Probably the logical equivalence is something like: "Soon he will draw in his breath deeply, apparently into his nasal cavities and exhale it explosively, with a 'tch' sound." That is a pretty good logical equivalent, except that, following those instructions to the letter might not actually produce a sneeze. Sneezing is only very roughly equivalent to these actions; but it is by no means the same. Thus, Logical Positivism, if the verification principle is strictly applied, is committed to ruling out almost every statement in the common language as non factual, or non empirical, and making them "protocols"; surely an unacceptable state of affairs. Ultimately, it leads to the undoing of Logical Positivism as well, for many scientific statements are verified by perfectly mundane observations. To use an example used by Carnap in Philosophy and Logical Syntax: if I say "This key is iron" then this statement can be verified as follows.

All iron objects are attracted by magnets. {General Law}

This is a magnet. {Previously verified}

I place the key near the magnet. {Verified by observation.}

The key is attracted by the magnet. {Verified by observation.}

But the latter two statements in the schema are perfectly inexact statements in the common language, without any very strict logical equivalents or methods of verification of their own, and so, therefore are non factual. Thus, the strictly scientific is undone by the necessity to use the murky, non factual, common language in its pure and rigorous pursuits.

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Wittgenstein and "Criteria".

But it is, of course, absurd to suppose that the common language is non-factual. To his credit Ludwig Wittgenstein realised this. His response to this problem was two pronged. **FIRSTLY:** he extended the Verification Principle to cover all cases, right down to the most fundamental observation statements. Hence, he claimed, the statement "This book is red" could be verified by agreement in our behaviour. If we all stand in front of the book and say, "Oh look at the red book", then the redness has been verified by agreement of expression. And if someone says, "Grab the red book!" and we all make a move to

clutch the same book, then the book is indeed red. Agreement of expression, along with agreement of disposition, renders the statement empirical; because those just are the methods of verification.

And this, of course, is precisely the reason why Wittgenstein claims the "beetle in the box cancels out"; for it is uniformity of linguistic behaviour, and appropriateness of physical behaviour, that unequivocally lays down the criteria of truth and falsity in this case. But notice, it is both, not either one or the other. If I say: "Don't touch the red book! Lucretia Borgia has poisoned it;" and you say; "Oh! The red book is poisoned is it?" and walk over and pick it up, then something has gone very wrong. One of the things that might have gone very wrong is that I have made a factual blunder and misdescribed the book. Alternatively, you might have got your facts wrong and mistaken the red book for the blue book.

SECONDLY: while this expansion of the Verification Principle made all, or almost all, statements in the common language empirical or factual; it left unexplained why we made such assertions as, "that is a tree", or "He is running down the road". Obviously we did not achieve agreement of behaviour merely capriciously. Rather, Wittgenstein asserted, we achieved agreement in cases such as the above, by applying the criteria of identification laid down in our public language. Thus, something was a cow because it was a mammal, had four legs and four stomachs, had horns and so forth. These were the criteria for being a cow. And there were also criteria for all sorts of human behaviour. Running, for instance, involved raising

the knees high, covering the ground quickly, landing on the balls of the feet and so forth. But sets of criteria were loose sets, so it didn't matter any more that some people landed on their heels when running. Criteria were a real life saver; for they allowed us to justify and criticise claims about the everyday ~~day~~ world, and be right or wrong about that everyday world.

But criteria themselves are not free from problems. If I say that you are in pain, then I am saying that because I am applying criteria and because I have evidence. You are groaning, holding your knee and turning pale. These actions are what is involved in being in pain. But what if I say, "I am in pain"? What am I doing then? I am not applying Wittgenstein's criteria, for I do not observe my own pain behaviour. Wittgenstein's answer to this is that I am repeating an expression and that I do not "know" I am in pain.

"---Well, only I can know whether I am really in pain; another person can only surmise it. ---In one way this is wrong, and in another nonsense. If we are using the word 'to know' as it is normally used (and how else are we to use it?), then other people very often know I am in pain.--- Yes, but all the same not with the certainty with which I know it myself! ---It can't be said of me at all (except perhaps as a joke) that I KNOW I am in pain. What is it supposed to mean --- except perhaps that I AM in pain? (Philosophical Investigations. No 246.)

To "know" that I was in pain I would have to have evidence, apply criteria and possibly be wrong; which it is alleged, by Wittgenstein at least, I cannot be. And the same is true presumably, to a greater or lesser degree, of being happy, sad, depressed, angry and so forth. The same must also be true of "seeing red", for there are no criteria of redness. Thus, according to Wittgenstein, there

are a whole range of things that you can know about me but which I cannot know about myself, which seems very odd indeed.

Wittgenstein, like the Logical Positivists before him, simply failed to get a uniform factualness across the whole spectrum of the language. He almost got all the way, but, in the end, he stumbled over what appear to be the most basic reports of experience. And few, if any of us accept, that when I say "I am in pain" or "The book looks red" I am not making a factual statement. But actually I think this failure is only the sign of a greater failure.

Wittgenstein says we identify things in the world by applying criteria. But do we really? I do not believe we do. Rather, I believe, we identify things in the world because we RECOGNISE certain objects or certain states of affairs that pertain. Further, we RECOGNISE that a certain expression is appropriate to this recognised object or state of affairs. Let us return to the three expressions we looked at before.

- a. He is running down the road.
- b. He played a forehand drive down the line.
- c. He will sneeze shortly.

As I said before, it is very difficult to distinguish in terms of criteria between someone who is walking and someone who is running. Yet few people who have seen both walkers and runners in action will

have any difficulty in distinguishing the two groups, even if the walkers are moving faster than the runners. Indeed, even people who would probably be incapable of enunciating any criteria at all for running would be able to identify runners with no difficulty.

Further, even if I was in possession of all the appropriate criteria, I might still say, when applying them correctly, that someone who was walking was running. Indeed, I should certainly do so if I could master the meaning of the language, but hadn't, due to some strange quirk of fate, seen anyone actually running. The criteria, in this case, are completely inconclusive, yet no one makes mistakes about whether or not people are running.

In the case of a forehand down the line the criteria are more relevant. For a shot to be a forehand down the line the striker of the ball must hit it off his forehand and the ball must travel parallel to and very near the line on his forehand side. But if I am doing a tennis commentary and I say "Borg plays a forehand down the line", I am not so much applying those criteria as RECOGNISING a particular state of affairs. I don't have to think about the situation and apply the criteria for, if I did, I would be unable to give running commentaries on tennis matches. Criteria are used in justifying claims if and when they are disputed. Of course, if I do not understand such expressions as "forehand" and "line", I cannot say that Borg plays a forehand drive down the line. But I use a certain expression, not in virtue of criteria, but in virtue of the fact that I am familiar with a certain state of affairs and I know that a certain expression is appropriate.

And what of sneezing? I challenge you now, without thinking about it, to immediately tell me what the criteria for sneezing are. If you are honest I think you must agree that you cannot. But if someone were to walk in the door at this instant and sneeze, you would not apply the wrong expression, for you know what sneezing looks like and sounds like. And, if you want to find out what the probable criteria for sneezing are, what do you do? Well, you do what I did when searching for a description of sneezing. You sneeze, and then describe the crucial actions. Criteria, in other words, often come after actions are identified, NOT before.

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"Grounds" versus "Criteria".

I therefore think that the crucial matter in applying expressions is not criteria at all, but RECOGNISING WHAT SITUATIONS WHAT EXPRESSIONS APPLY TO. (This is a little like recognising an image in a mirror.) And then, of course, there is absolutely no difference between the status of expressions such as, "This book looks red" and "I am in pain" or, expressions such as, "He is running down the road". We see a red book and say; "The book looks red." We see a man running down the road and say; "He is running down the road." Thus all the expressions in the common language are either facts or not.

And this, of course, appeals to our deepest instincts about

facts and the way they work. When I say, "I see a red book" and when I say, "You see a red book"; in both cases I am reporting a fact, though on different grounds. For often there are very different grounds for asserting that a certain state of affairs is the case: and there is no reason to believe that the "public grounds", of which criteria compose a substantial part, for asserting a certain state of affairs is so, are superior, to what might be called the "private grounds" for asserting it is so. "Private grounds", in fact, extend a long way across the language. Consider the following story.

Yesterday I went to town. I remember it perfectly clearly. I got up, milked the cows, had breakfast. I changed out of my khaki pants, woolen socks and bushman's singlet and into my tweed sports coat, moleskin trousers and patent leather shoes. I got in the Ford, rattled over the cattle stop and drove off, the dust funneling out behind me. On the way I passed certain specific things. A certain red roofed church, a country pub. I noticed that the poplars outside Pine Tree Nurseries were showing bad signs of rust. I drove past the racecourse, the golf course, one of the local High Schools and then I was in town.

In town I did some shopping. I bought some summer working shirts at a menswear shop, one dozen cream buns at the bakery and ordered ten rolls of fencing wire from the Stock and Station agent. I did a spot of desultory window shopping and then drove down to the beach; and, after watching the waves slap tirelessly on the shore for a time, I drove back home. That was my trip to town and while it was unexciting it was satisfying.

Now if you should ask me if I went to town, I should probably say indignantly, "Of course I did." And if you asked me further, how I knew I had been to town, I would start to feel strange and probably upset, as we all do when people question what we are quite confident of having done. I would run through my mind the specific sights and smells that I remembered. I remembered specifically the sun glinting high and hot over the eastern hills and making the unpainted roof of the local winery shine like a lake. I remembered the fresh clay lying alongside the trench on Smith's front lawn and the way the dark orange pipes lay scattered on top of the clay. I remember the blacky brown colour of the leaves of the poplars outside Pine Tree Nurseries. In town I remember being suddenly struck by how old the clothier looked. It was the first time it had ever occurred to me that he had gone grey. I could also remember the mole, black and mountainous, on the cheek of the woman in the cake shop. I always perused that mole with special interest and yesterday was no exception. Having thought about these things, having remembered what was remarkable about the experiences of yesterday, I would say: "Of course I went to town. I remember it perfectly distinctly." I know I went to town because I remember having seen this and that and the other.

But necessarily, this is unconvincing to anyone else. At a farm thirty miles away Montie Doldergrass has been murdered. It was well known that Doldergrass and I were old enemies. He had cheated me out of two cows twenty years ago and in revenge I had seduced his wife behind a barbary hedge during a local dance. Consequently the local policeman turns up wanting to know where I was yesterday morning;

and you, being a typically curious neighbour, want to know as well.

"What time did you leave for town Reg?" the policeman asks.

"About 8.30."

"Are you sure it wasn't 8 o'clock?"

"No. The shops don't open until nine."

"Did anyone see you?"

"I don't recall seeing anyone. Did you see me?" I say turning to you.

"Yeah.Sure did, " you reply. "I was just letting the dogs go and you were driving away up the road. Must have been about twenty five to nine. I always finish breakfast at eight thirty."

The interrogation goes on. The policeman wants the facts. Unfortunately, from a legal point of view, there are not a great many of those. I can only refer him to the clothier, the cake shop and the Stock and Station firm. Fortunately these people, apart from the new clerk at the Stock and Station firm, know me on a first name basis. There is one other fact that works in my favour. You, my nose-y neighbour, had seen me in the Ford and the tread on the tyres of the Ford doesn't match the tread marks left by an unknown vehicle at the scene of the crime. After a few phone calls to town the

policeman tells me I am in the clear. The clothier and the woman in the cake shop both remember serving me. Furthermore, the Stock and Station firm have a dated order for ten rolls of fencing wire to be delivered to me, written the previous morning by their clerk Harris. My story, at least for the moment, has been sufficiently corroborated.

But consider the difference between my position and the policeman's. I know I have not committed the murder. I conclude that I have not done so because I do not remember anything about going to Doldergrass'; no memories either specific or general come to me. Moreover I do remember, most vividly and specifically, a whole host of sights and actions from yesterday morning. Because of this I am convinced of my innocence and will remain so, even if the evidence starts to pile up against me. The policeman, on the other hand, does not know whether I have committed the murder or not. Unlike me he has to rely merely on the public evidence. He has the testimony of others as to my whereabouts at certain times or approximate times. He has a piece of written evidence which strongly suggests I was at the Stock and Station firm in mid morning. The tread on my tyres does not match the tread marks left, by the as yet unidentified vehicle, at Doldergrass'. All this is evidence, yet the policeman does not know. But I have no additional evidence, of a legally acceptable sort. If I do know, then knowing is not dependent on evidence and following certain public criteria. In this case it seems to rely on something we are inclined to call internal evidence, facts of my consciousness or private grounds.

FACT. I remember the sun on the winery roof.

FACT. I remember the children in the playground.

FACT. I remember the wart on the chin of the woman in the cake shop.

FACT. I do not remember killing Doldergrass, or anyone else.

FACT. I can't form any precise image of what Doldergrass looked like.

FACT. I can't remember anything about the clump of violets in which Doldergrass was found dead.

Now let us suppose I am perfectly sincere and am not lying. Further suppose that evidence begins to pile up against me. For instance: suppose someone comes forward who says they saw my Ford at the Doldergrass residence between the time I visited the Stock and Station firm and the time I was known to have returned home, that is, the time I believed I was at the beach. Further suppose, that in my garage a set of muddy tyres is found that match the tyre marks outside the Doldergrass' residence. Suspicion against me is very strong now. On the evidence you might almost want to say that you knew that I had committed the murder. The public criteria are all that matter IN YOUR CASE.

But what about me? I am still claiming that I KNOW I did not

commit the murder. I cannot remember anything about murdering anybody. I remember those waves, the light flaking off them and the smell of ozone in the air; and I know I was there, looking at those waves, at the time the murder took place. Moreover, I am not stupid or apparently insane. I know the weight of the evidence against me. It simply conflicts with my own memory. Moreover, I can't think of any cases in the past when my memory has let me down in a major way. I've had small lapses of course. Occaisionally I've paid the same bill twice and so forth. You say things like; "He says he didn't kill Doldergrass," or "He imagines he didn't kill Doldergrass," or "He believes he didn't kill Doldergrass." You are applying public criteria; you know ON THE BASIS OF THE EVIDENCE, or at least you claim to know on that basis. But my expression is totally different. I am still saying "I know" when you are saying "He believes". We could not possibly be making such different claims unless we were making them on different grounds.

In other words I make claims to know, in certain instances, on non public grounds, though only in a certain sense of the word non public. BUT, if I make claims that you or he or they know, then I always use public criteria. And all this is simply a way of saying; that the facts in my own case, are different from the facts in anyone else's case. Some facts, are in some sense private, they cannot be supported by evidence, they do not constitute evidence, but they are still facts, TO ME.

Of course, I may at any time change my mind. I may say something to the effect; "Well I cannot remember ever going to

Doldergrass'. In my own mind I am sure that I was on that beach. But obviously I am mistaken. I am sure I can remember being on the beach; but if I killed Doldergrass then I don't remember being on the beach, I only imagine I remember being on the beach." Whatever I say here, the grammar becomes strained. There is nothing that I can say which doesn't hint at contradiction and absurdity. This, I suggest, is the result of changing from one language game to another; from a set of public criteria that apply when I am assessing the claims of others, to a set of grounds which are private, in so far as they apply only to me. For instance, I must be sure I genuinely remember going to the beach. And sometimes, of course, we cannot genuinely remember. Then we have to work out what we did or when we did a certain thing, in exactly the same way as we would work it out for a third party. There are a whole host of phrases here. "I remember", "I think I remember", "I don't think I can remember", "I don't remember" and so forth. We utter these when we try, and fail or succeed, to bring an image before our minds. We are not simply engaging in grammatical talk.

This, I suggest, is a case where the "beetle in the box" fails to cancel out. The most that can happen, is that I cease to accept the private grounds and begin to accept the public criteria. Yet I cannot cite my memories as evidence, any more than a man can cite his memory of a railway timetable as evidence that a train departs at a certain time. Yet know I do, in spite of the complete absence of evidence and sometimes even in the face of it. My facts are not your facts. My experience forces a certain sort of utterance from me.

Thus it is far from apparent, when we claim to know something, that we are making that claim according to public criteria. Indeed, in our own cases, these criteria are usually completely secondary. Yet this in no way discourages us from making claims to know, claims about which we may, indeed, be wrong. And it is also perfectly apparent that these instances of first person knowledge are of the same sort as claims about seeing red. Thus, the break between first person utterances and second and third person utterances is shown to be, not one of fact, but a dichotomy of a completely different sort. It is a dichotomy between public grounds and private grounds. And the two different grounds merge and become confused. For when I claim that Borg plays a forehand down the line, I may justify my claim by citing the criteria, the public grounds, on which I based my claim; but the initial claim was made because I RECOGNISED a certain state of affairs, and that recognition, was my private ground for the claim. What I am saying is that if THE BEETLE IN THE BOX CANCELS OUT THEN EVERYTHING CANCELS OUT and if THE BEETLE IN THE BOX DOES NOT CANCEL OUT THEN NOTHING CANCELS OUT. I am claiming that there is no radical discontinuity between a report that I am in pain or see red on one hand, and a claim that x is the murderer or Jones is going to town on the other. It is not that some things in the language are arbitrary, as the rules of a football game, and other things follow by logic from these rules or axioms. It is that everything is, either equally sloppy and uncertain, or, equally hard and certain.

And there are even instances, of a perfectly public sort, when we wish to claim that x is a fact; but when we can cite no "evidence" in favour of, or criteria for, x at all. Consider the

following scene.

I go to the Tate Gallery with a friend. We are looking at the Turner's of which the Tate has a splendid collection. We walk along from painting to painting admiring Turner's splendid depictions of English scenes, most particularly, his light effects. Suddenly we come upon a picture of Venice. It is a painting of the Grand Canal and somewhat uncharacteristically it is very dramatic, full of bodies straining in action.

"Oh, it's Venice!" says my companion.

"Yes," I say, "That's the Grand Canal."

"And there are gondolas," says my companion.

"It's funny how little the place has changed," I say. But really I am a bit puzzled by this painting. It's Venice alright, but there's something wrong. I look hard at the painting. Then I laugh. I have worked out what is strange about the painting.

"It just goes to show how limited painters are," I say.

"What do you mean?" my friend asks, puzzled.

"Don't you see what is wrong?" I ask.

"Wrong? Well, the painting is untypical, very dramatic in

intention, but it doesn't seem to work quite right. I'm damned if I can work out why though."

"It's easy!" I say. "He's got the light wrong. He's painted a picture of Venice but he's used English light."

"How do you know? What makes you say that?"

"I can't explain it anymore. Can't you see it?"

"Not really." And there is nothing more to say. None-the-less, the light is English.

Now someone cognisant with the techniques of painting and knowledgeable about Turner, would undoubtedly be better at justifying this claim than I would. He would be able to explain the various ways Turner mixed his paint and the sorts of brushes he used and the specific ways he used those brushes. He might also add, that since Turner learned to paint light in England and light is very hard to master, he spent years acquiring a very specific technique and was not able to change it when he encountered a different environment where the light was different. But what he would not be able to explain was how Turner painted English light, as opposed to Venetian light, as opposed to light that no one had ever seen anywhere. All that can be said, is that Turner saw English light with a clarity and sensitivity not accessible to most people; and somehow reproduced that light on canvas so that I could come along almost two centuries later and say, "Oh, English light!"

And it is not, of course, agreement of expression which is important here. It is the fact that the painting depicts English light which is important. The picture, in a sense, forces a certain response from me. I could probably march a whole horde of Fourth Grade Rugby Teams past the picture and would not have agreement of expression with one of them. In which case they would be wrong and I would be right. But as far as evidence goes I have none, except of course for the picture, which in a literal sense says nothing. But no one will claim I have no grounds for what I say. For I RECOGNISE the English light.

\* \* \* \* \*

Thus the problem concerning the privacy of experience is far less of a problem than imagined. For one thing it is extended to virtually every statement in the common language and widening its range hopefully mitigates its severity. Secondly, we commonly know a whole host of things on the basis of something other than philosophers "protocols", or "criteria", or even "evidence"; things supposedly much more public than the red of a book. So where is the problem of privacy? It is, and always has been, a non-existent problem. So there is NO NEED TO EXCLUDE EXPERIENCE FROM SEEING AT ALL. Accordingly, we can add to the results of the previous chapter, that seeing is not merely possibly, but obviously, a matter of successes, terminations, dispositions and EXPERIENCES. Any other explanation leads to bizarre results.

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Chapter 8.HOW THE WORLD IS LANGUAGE INDEPENDENT.

By now much of the Realist's view has been restored to respectability. There is a world full of objects and we do, it seems, experience those objects. But we must give back to the Realist even more than that. We must concede that, to an extent, the world is indeed language independent, otherwise much in our behaviour and language would be inexplicable.

For it is tempting to give too crude a picture of the world's dependence on language. We might say that grammar and sentence structure drill into us that there are objects which do things; and as a result of this purely linguistic training, rather than as a result of our pre-linguistic apprehension of the world, we come to see trees and flowers, rocks and rock lobsters, cabbages and kings. Without such vocabulary and syntax everything would be crazy, confused and chaotic. Language is the fine tuning knob on the television set, organising an otherwise scrambled picture.

Now I certainly do not believe that this picture is entirely wrong, indeed I believe it to be substantially correct. Where I part company with it, is when it claims, that it is purely as a result of our linguistic training that we come to see the world as we do. Rather, I believe that action is as important, if not more important, than language in determining the nature of the world. It is action, of which language is a part, which provides "the given" in

perception. To this extent we do know the world non-linguistically. (That this action is itself determined by speech will be shown in the succeeding chapter.)

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The view that language, all alone and on its own, shapes the world, arises in a rather simple and, I believe to sophisticated philosophers, an almost irresistibly tempting fashion. It arises out of criteria of identification. "For how," some philosophers ask, "can I possibly identify a horse unless there is a great deal about horses I already know." How can I distinguish a horse from a pig, unless I know that horses are on the whole bigger than pigs, that horses do not have cloven hooves and pigs do, that horses have manes and pigs do not, that horses have tails made up of thousands of individual hairs and pigs have small curly tails, and so forth. In short, we pick things out because we know in what important respects some things differ from other things, both other things of a very different sort and other things of a similar sort.

Now, it is certainly true, that when two mature adults are debating over whether or not something is a pig, we justify our claims in ways similar to the above. We grab hold of the animal concerned and look at its feet; we agree that it has cloven hooves and we try to come to similar agreements in expression over the various other features of the animal. Usually such agreement is possible, though the animal may have certain features which we are not sure how to characterise. Having drawn up a list of what might

be called appropriate predicates for this particular pig, we then compare this list of predicates with the standard list of predicates, applied to the general word "pig". If the two lists are in agreement, at least about what might be called the invariant predicates of the word "pig", we are inclined to agree that the animal we have just examined is a pig, and that "pig", is the appropriate word in this instance.

But notice, this is a highly sophisticated piece of linguistic behaviour and there is no reason why linguistic behaviour should operate according to the same sophisticated principles all the way down. That is, we may learn a piece of behaviour in one way, but, as we develop, come to apply it and justify that application, in a way quite different from the way in which this behaviour was acquired, or even taught.

Still, the exponent of an extreme form of language dependence does have a good case vis a vis object discrimination. It is indeed something of a mystery how initial discriminations are made, on any theory of language and the world. Suppose, for instance, I discover a new weed in my garden. How do I make such a discovery? Well, initially I must see and identify all the other weeds in my garden. I must know the Dandelion and the Fat Hen and the Prince of Wales Feather and the Ragwort and the Milkweed. Then, and only then, can I know that I have some weed that is not usually there. Moreover, I must have sufficient interest in weeds to know these things in the first place and to be looking for other weeds. I must know that there can be weeds other than those I know. So, it appears difficult

for me to pick one thing out in the world, without knowing all the other things.

On the other hand, this story is not entirely correct. I personally know very little about weeds, apart from the more spectacular flora just mentioned. Yet, if you asked me to go out and make a collection of all the weeds in my lawn, I should easily be able to do so, simply because, they LOOK DIFFERENT. Moreover, if I could keep my collection intact, I could identify a new weed in my garden at a later date, simply by making a new collection and comparing it to the old. I should be able to do so, again, because the weeds LOOK different or the same. In other words, I would classify by recognition.

And it is this recognition of varying appearances that surely allows us to exit from the maze of words to the world. For, in a sense, I believe the Realist to have been right in his desire to connect the two orders. Where I still disagree with him, is his contention that the world is split up into "givens", irrespective of the language spoken, and that our first speech behaviour is attaching labels to those givens.

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Thus, I suggest our language <sup>c</sup>aquisition goes something like this. After birth the world slowly comes into focus. Certain hitherto indistinct phenomena become definite, sharp edged, possess certain combinations of colour, a certain texture and so forth.

Moreover, the world comes into focus because our human activity teaches us to see in a certain way. And, as human activity goes on all around us, we come to recognise the language and associate the language with what we see. For instance, the child SEES THE FISH and APPLIES THE WORD it has been taught to apply. That is, it sees the cue and it behaves in response to the recognised cue and that behaviour is corrected until it is appropriate.

This being so, there cannot be any linguistic behaviour without the identification of the cue. Hence, in a certain sense, seeing must precede speech. So in this particular sense, and it is a very limited one, the world is "language independent", if you like. It must be for there to be any uniformity of linguistic behaviour. If something uniform did not exist to trigger our linguistic behaviour, then all possibility of rule governed behaviour would simply vanish.

But these cues themselves cannot be solely determined by linguistic behaviour; for if this were the case, it would be plainly impossible for creatures with different languages, linguistic disabilities, or even no language at all, to see the world as we see it. But such creatures do see the world, at least in part, as we see it; for it makes sense to attribute to the deaf and even some animals, similar notions to our own.

\* \* \* \* \*

The Conceptual Similarities of the Deaf and the Linguistically  
Competent.

Most of us imagine, especially after the success and fame of Helen Keller, that the majority of deaf people can talk and lip read, that they are thoroughly cognisant with our language and, apart from their obvious disability, are just the same as us. This is in large measure untrue.

Even today, despite all the progress that has been made, the deaf are only known to a few outsiders. Largely excluded by their communication handicap from ordinary society, they naturally tend to group together and form their own "community" within the wider society. Among themselves they communicate in the "language of signs", a system of conventional manual symbols supplemented by some finger spelling. We refer to it here as sign language, with emphasis on the fact that it is not a dialect form of English or of any other verbal language. It consists rather of visible movements of the hands and arms, many of them derived from natural gestures. Sign language as used in the United States may be historically traced to manual symbols introduced into this country from France in 1816 at the time when the first United States school for the deaf was founded at Hartford, Connecticut. Sign language is no longer taught in any school but is acquired by deaf children in association with other deaf persons. (Thinking Without Language. G. Furth, pg 9.)

The deaf live in their own isolated environment, they are a people within a people, a people who play their own language games. Moreover, their ability to communicate with the non deaf, is for the most part, very limited.

"To communicate with the hearing, writing is the most used and most reliable method employed by the deaf. Contrary to general popular opinion, very few persons are expert lip readers. Some have a limited facility in it but the great majority cannot master it at all. A similar statement can be made with regard to speech. Both speech and lip reading assume basic familiarity with the language.

(Thinking Without Language. pg 10)

Yet, in spite of living in a very sheltered environment and with limited ability to communicate with normal speakers of the English language, deaf people tend to lead extremely normal lives. They marry, usually to one another and hold stable jobs. They belong to clubs and enjoy visiting one another and travelling. They ferociously resist attempts to view them as somehow handicapped and prize their political and economic independence.

BUT, if it is true that without linguistic competence we would not be able to tell a horse from a hole in the ground; then it is utterly amazing that the deaf grasp anything at all, or at least behave appropriately to as many things as they do. If indeed their language is their own, why is it not radically different from our language; and if it is radically different, why is their world not radically different from ours? Wittgenstein once wrote:

"If a lion could talk we wouldn't understand him."  
(Philosophical Investigations. pg 223.)

Why isn't the position of the deaf analogous to that of the lion?

After all, in many cases the deaf never learn the basis of our language. Many of the deaf are not diagnosed until they reach the age of three, partly because of the difficulty in detecting deafness and partly because parents are reluctant to admit they have a deaf child. Like the lion these children might be expected to have an acute sense of smell. At any rate, like the lion, they would have

different interests from those with normal hearing. So, also like the lion, when they did develop their own language, we should expect it to be very different from ours. Consequently, they could be expected to have the greatest difficulty with our world. They might even be expected to have difficulty with material objects, especially if they did not have a noun verb language.

Yet the deaf do not show any more tendency to walk through trees than we do. This is because, in fact, they view the world in almost identical ways to the linguistically skilled. They appear to possess, at an early age, a good few sophisticated concepts, which one might suspect, were the prerogative of the linguistically competent. Two of these concepts are:

- a. The same.
- b. Part of.

I shall now give a necessarily brief account of two experiments performed by G. Furth to demonstrate that the deaf do possess these concepts.

The concept of "sameness" was chosen for this experiment, because workers with the deaf reported that there was no child in deaf school who did not have some gesture for this notion. This is Furth's description of his experiment. (I should point out that the participants in the experiment numbered 180 deaf children aged 7-12 years, with a control of a similar number of children with normal hearing.)

The Sameness task consisted of a series of 40 different pairs of round tin covers with two simple figures

drawn on each cover. The two figures on one of the covers were identical. On the other, the two were different. An illustration is given in Figure 1. Under the cover with the identical figures, a checker was placed indicating to the child the correct choice. The criterion for success was 10 consecutive correct choices. The trials were terminated after the criterion was reached or with the first error after trial 30. (Thinking Without Language. Pp 79.)

The result of the experiment showed that deaf children were actually slightly better at mastering this learning task than those with normal hearing. (Interestingly, two other experiments were run in tandem with this experiment. One of these experiments was on Symmetry, and again the deaf scored as well, if not slightly better, than the sighted.)

The general point should be plain; namely, that people with very poor linguistic skills have as good a grasp of the notion of sameness, as those with good linguistic skills. So, in some sense, the notion of the same must be acquired non-linguistically. (This contention is strongly reinforced by the test on Symmetry since, it is fairly apparent, that children do not have a verbalised concept of Symmetry before the age of 12 years {See Levy and Ridderhiem}. Yet, a great many children can use the concept, in a perfectly consistent way, long before they have any verbal mastery of the expression.)

The conceptual sophistication of the deaf is further emphasised by Furth's experiments on the notion of "Part Of". Here is Furth's description of the experiment.

The hearing children who participated in this experiment came from Grades one to five and Grade ten of several parochial schools. Divided into six groups on the basis of age - 6 years, 7 years, 8 years, 10 years and 14 years - there were in each of the groups 36, 51, 59, 62, and 100 subjects respectively. The deaf subjects were chosen according to availability from the various schools for the deaf, and in each age group corresponding to the above there were 16, 11, 14, 20, 13, and 41 children.

An artist drew twenty sets of five pictures each with black pencil on 3 by 5 inch white cards. In each set only two drawings illustrated the Part-Whole relation and these two were the "correct" choices. Several other reasonable combinations according to class, function, or experiential association were included in each set. These related pictures, providing a strong pull of misleading perceptual associations, would, we believed, effectively establish whether or not the subjects had firmly grasped the specific principle of Part-Whole. In one set, there were, for example, Eyeglasses, Face, Book, Hat and Ear. While the pictures of Face and Ear were the only correct choice according to the Part-Whole principle, other reasonable choices which might interfere with the correct selection were: Eye-glasses and Book, Hat and Face, etc. The first 13 sets were used as learning trials while sets 14 to 20 served as uncorrected criterion trials.

The experimenter placed five pictures of one set on the table in random order and without further explanation indicated to the child that he should pick up or point out two of the five. After the last trial, the hearing child was asked to explain, if he could, the principle of his choices. (Thinking Without Language. pp 93-94.)

Furth's own summary of the relevant conclusions is also worth quoting.

"There was an overall trend for performance to improve with age, but this relation was not pronounced and not consistent from year to year. On the other hand, IQ was a very significant factor, with high IQ subjects consistently making less errors than low IQ subjects at each age level. Moreover, the performance of the deaf subjects closely approximated the performance of the hearing subjects.

Concerning post-test verbalisation, it was found that younger hearing groups were quite unable to explain their selections, even most of the fifth graders replying merely: "I can't tell." Of 115 subjects 14 and 15 years old tested, 22 gave this answer, while 46 said something vague

such as "go together-belong"; 30 mentioned "needed" or "repeated", while only 17 used the correct verbal term "part". Table 7, below, shows the numbers of errors subjects in these categories made on seven criterion trials. It can be observed that the correspondence between correct verbalisation and consistency of performance is by no means perfect or even close." (Thinking Without Language. pp 94-95.)

Now, what is so interesting about this experiment, is that the relation Part-Whole seems to me a rather sophisticated one, one which you would need a reasonable degree of linguistic sophistication to grasp. Yet, a great number of subjects who were totally unable to articulate the principle involved, managed, in practice, to apply it very well indeed. Obviously we do not need to be able to linguistically express all categories before we begin to apply them. To this extent, we learn of the world non-linguistically.

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The Conceptual Similarities of Animals and the Linguistically  
Competent.

And of course, it must be possible to learn of the world non-linguistically: for we want to say of at least some animals, that they see the world, in part, as we do and behave in some of the ways that we behave.

This point is, of course, hotly disputed by some philosophers, who argue that because animals do not participate in our language games, they are, not merely accidentally, but essentially, prohibited

from participating in our forms of life. Moreover, these philosophers argue that our language is simply inapplicable to what animals do. Again Wittgenstein gives a good example of this.

Why can't a dog simulate pain? Is he too honest? Could one teach a dog to simulate pain? Perhaps it is possible to teach him to howl on particular occasions as if he were in pain, even when he is not. But the surroundings which are necessary for his behaviour to be real simulation are missing. (Philosophical Investigations. No. 250.)

As it stands, this remark seems very odd indeed. Animals aside, under what exact circumstances can human beings even be said to "simulate pain"? The word "simulate" of course means "to feign, to pretend to have or feel", according to the Pocket Oxford Dictionary. Now, if "simulate" means the same as "pretend", then people often do "simulate pain". They do so moreover for a purpose; to excite sympathy. From childhood we are used to being comforted when we are hurt, the "mummy kiss it better syndrome"; so we pretend to be in pain in order to gain sympathy. And, if we are actors, we might "simulate" pain for quite a different reason. We simulate pain, not in order to gain sympathy for ourselves, but to gain sympathy for the character we are playing. We also simulate pain to make the audience believe, in a certain sense of "believe", that what they are seeing is real. (An actor who has supposedly been stabbed in the abdomen and behaves as though he has mild indigestion is likely to find himself unemployed quite quickly; for not only is he failing to gain sympathy for the character he is playing but he is disrupting the illusion the play strives to produce as well.) Of course, in neither of these cases is the person concerned simply "simulating pain". In the first case we may say, "Oh, he's only simulating pain;" but it

would be more appropriate to say, "He's putting you on;" or, "Take no notice! He's only trying to gain your sympathy." "Simulate" in this case strikes the ear oddly. Somehow pretending to be in pain is a more serious business than simulating pain. And, in the second case, we don't really think of actors as simulating at all. Not that we would deny straight out that actors simulate; it's rather that we think of them as somehow becoming the character, so that in some sense, the actor as a person is mixed up with the character he plays. In a certain way he is simulating honestly. In short, he is simply acting. The actor would only be simulating pain if he went through the motions of being in pain without conviction as it were. For Wittgenstein, if he indeed means what he says, is using the word "simulate" far too loosely. "Simulating" is not exactly the same as shamming, dissembling, pretending and so forth; and none of these words are identical in meaning to any of the others listed. Simulations are actually very formal. Psychology students often have role plays in which one is the patient and one is the psychologist or therapist. These are correctly called "simulated interviews" or "simulated therapeutic situations." The army has "simulated attacks". Training people for Civil Defence purposes is often done with "simulated natural disasters". In this disaster people might, or might not, "simulate pain". In Civil Defence exercises it doesn't matter too much whether the victims of the disaster lie there groaning or chattering and smoking cigarettes. But actors do not "simulate pain", actors act. Hypochondriacs do not, strictly speaking, "simulate pain", they sham pain. A simulation is a matter of going through the correct motions, with or without conviction, usually for an educational purpose. Someone who pretends to be in

pain, usually does it with conviction and without any educational intentions.

So if Wittgenstein does not really mean "simulate", it seems reasonable to assume that he means "pretend". Therefore, to return to the animals, he must be asserting that a dog cannot pretend to be in pain because he does not understand such things as lying or being truthful, and so forth. And Wittgenstein is on strong ground it seems, for there are few people who do not understand the ~~the~~ word "pretend", so there are few experimental subjects to contradict him. But unfortunately there is one group of individuals, whom most would class as human beings, who do not understand the word "pretend", but are yet very accomplished at pretending. These individuals are babies. Babies are artful little creatures. If they cry loudly at two in the morning and you make the mistake of getting up to them, their tantrums will rapidly become a habit. The first night they cried they may have really had colic, but by the fourth night you know perfectly well they do not have colic, or even wet nappies. These babies are "putting you on".

It is of course fair to ask; "But are they really pretending?" And in one sense we want to say no. Babies do not know what pain is. They cannot tell us what it is, there is no question of their knowing which things produce pain, or of them taking any deliberate steps to avoid pain. Certainly no baby could simulate pain "without conviction". But, in quite another sense, these babies are pretending to be in pain. Babies like attention and they tend to like it in a sort of geometrical progression, the more they get the

more they want. So, in order to get attention they will pretend to be in pain; and like an actor, they will do it with complete conviction. In this case we want to say babies pretend to be in pain unconsciously. For we know they are not feeling pain, no one gets colic at two in the morning four nights in a row; but they are behaving as though they feel pain because they want attention. Perhaps they are simply bored with lying awake in their cots. So we are in a position of saying that babies, in one sense do not pretend to be in pain, and, in another sense do. They do not pretend to be in pain knowingly and deliberately; but they do pretend to be in pain unknowingly or unconsciously.

And the same is often the case with hypochondriacs. Very few hypochondriacs are cold blooded. They do not necessarily take turns for the worse when their partners are about to go to the movies or a sporting event. Most of them feel a little bit miserable and like a good actor, they build upon their unhappiness, magnify their pains, contort their bodies into the appropriate posture, and so forth. They come to see themselves, almost with total conviction, as being really ill. One little part of themselves knows that if they really wanted to they could pull themselves together, but somehow the effort is too much. Everyone gets used to their roles and the role of the hypochondriac is being sick, so that is what they go on doing. So usually, the hypochondriac is more like the child. They do not behave as they do deliberately, but unconsciously, from habit. They may not, in some cases, even be able to entertain the idea that they are shamming. But shamming they are and so, in this case too, we could say with justification that they are pretending to be in pain.

Thus, people can pretend to be in pain, that is dissemble or sham, either consciously or unconsciously. Not that I am claiming these expressions are exact synonyms, but only that they are more appropriate for everyday deceit. You do not have to know you are dissembling in order to be so doing. But if people, of various ages and conditions, can pretend to be in pain, or sham pain, without doing so cold bloodedly or deliberately; then animals too can pretend to be in pain, even though they lack the intention to deceive. And indeed, some animals do just this. I have observed dogs who upon being chastised, say for gnawing a hole in a bed cover, will limp away to their kennels. There was of course nothing wrong with their legs. The dog had simply been hurt in the leg on a previous occasion and had gained a lot of sympathy as a result. So, in order to rehabilitate itself in the affections of the family, it simply adopted a limp. And there seems to be no other way, at least to me, of explaining this behaviour, other than by saying, that the dog was pretending to be in pain.

But it may still be objected by those who maintain that animals understand everything differently from us, because they do not talk our language, or indeed any language; that all I have done so far is prove that living things can deceive without the intention to do so; and that sometimes we say that animals pretend or sham. But, these critics will doubtless go on to ask me, how can I be justified in extending terms used to describe human behaviour to animals? To an extent I have already answered with my example of the dog. The question is difficult however and merits further discussion.

Wild animals do not feign or pretend, at least in any way that is comprehensible to the human observer. The idea of a wild deer or a wild pig pretending to feel pain is quite ludicrous. Wild animals have little or no contact with human beings. They don't know that if they are especially appealing they will get patted, or fed an extra titbit at tea time. We commonly attribute, and I believe correctly attribute, our pets with certain qualities of character and emotions. But observe a wild animal and try to make some sort of character description stick. Wild animals are simply that, wild, and there is nothing in our language that seems to apply to them. That is why so many people find nature hideous. It is beyond our language and beyond our comprehension.

But, even here, there are certain borderline cases. Wild ducks for instance, which are neither noble nor malevolent nor affectionate nor arrogant, can still feign or sham. You surprise a wild duck in the spring with her brood of ducklings and she will feign injury. The ducklings will scatter one way and disappear in the surrounding watercress, while the duck swims in the other direction, dragging one wing in the water. If you get close enough to her though, she will fly. Once you retire from the scene, she will fly back and collect her young together again. No one can surely suggest that we are misapplying the word "pretend", or even in a very loose sense "simulate", to the bird's behaviour; for that is exactly what the bird is doing. I speak the language, I know how the word is used.

Of course wild animals do not share in our forms of life. The one response most wild animals have to man and the artifacts of

civilisation, is a sort of uncomprehending flight. But there are certain animals, which might be characterised as semi wild, who certainly seem to understand something of man. Often, in the New Zealand bush, certain huts become infested with rats. Once there, the rats are very difficult to get rid of, because they rapidly become familiar with the traps and baits used by men to destroy them. Indeed, such is the sophistication of some rats, they will nudge a rat trap until the movement of the trap sets it off, then seize the cheese and run. Stray Tomcats in urban areas display a similar guile. These animals have learnt something of our forms of life, though they speak no language.

But we do not wish to attribute character epithets to them. It is only to domestic animals that we wish to apply such epithets. We must of course be careful. If we were rash or careless we could end up attributing domestic animals, with qualities of character or performance, which they simply did not have. But usually we are not either rash or careless. For if wild animals elude our language, so do a whole host of domestic ones. Sheep have no character whatsoever and no one would want to use any personality epithets for cattle. Horses, for the most part, slip out from underneath the language. Working dogs are not benign, treacherous, jealous or self indulgent. And what of domestic cats? Do they have human characters in the same way as domestic dogs? I at least do not believe they do. My cat has a fair number of sophisticated behaviours. If he wants his dinner and I am making no effort to get up and give it to him, he will give me a formal bite on the hand. Sometimes I even get such a bite when he is merely disgruntled. What he is disgruntled about I have no

idea for cats are very hard to understand. Similarly, when I bring his cat box inside he goes and hides under the table, for he fears he is going to the cattery or the vets. When he gets to the vet and is taken out of the box he tries to get back in, because he believes that if only he can get back in, he will be taken home. Yet in spite of all these behaviours, which are quite sophisticated, I don't really want to say that a cat has personality like a dog. I've seen dogs that are ashamed, but never a cat that is ashamed; I've known jealous dogs, but never really jealous cats. I've known malicious dogs, but not malicious cats. A dog might plot a revenge on you, but not a cat. The list could stretch out to the crack of doom.

I conclude therefore, that as long as a human observer is reasonably careful in his use of language, the extension of certain character traits to domestic animals is both valid and informative. We are not indulging in reckless analogy when we talk of Old Red's love of children or fear of cars. Old Red knows quite a lot about cars. He knows it's fun to ride in them and stick his muzzle out the window in the wind. He knows they are dangerous because once he was hit by one. He knows that people travel in them because he always runs out to greet every car that comes in the drive. And Old Red loves children because he prefers their company to adults. He likes to sleep with young Joe on the rug; and once he even rushed out and scared off a man who was threatening some children whom Red didn't even know. Wild animals don't do any of these things, so they are useful distinctions to make.

But if our language does apply to dogs, and I include here only

dogs that are domestic pets because working sheep dogs are quite different; how do these animals learn these very complex human behaviours? It is not because they understand our language. Even the best mannered dogs don't sit because they understand the word "sit".

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### The Role of Action in Learning.

The only explanation for this is that perception is taught, not just by words, but also by action. Consider how games are actually taught to children. They are taught not by explanation, but by action. The child sees his fellows out playing cricket. He joins in. After a time he gets to bowl. He has seen his peers bowling and tries to emulate them. Initially he does this very badly. Bowling a cricket ball is a very unnatural action, though some people do it more easily than others. We are inclined to call these people natural athletes. But anyone who bowls long enough will get better at it and eventually find themselves in a formal cricket team in the local competition. They have learned to play cricket almost completely untutored and it is only at this stage that they will get any coaching, that is, that anyone will tell them what they ought to be doing. The coach will advise them to do such things as, "Get side on to the wicket before you deliver the ball;" or, "Make sure you keep your front arm high. Where the front arm goes the back arm follows." The children will not usually understand this advice and will ignore it, unless they adopt it inadvertently by finding that if

they bowl in a certain manner, which they have no way of describing, they can bowl faster or more accurately. In a certain sense they learn to play cricket wordlessly.

Even such non-physical games as chess are taught by practice rather than preaching. Admittedly we name the pieces, but we also show them the moves. We show them how the pieces move and how the pawns move, we show them the opening and the checkmate. As often as not this instruction goes in one ear and out the other. Children, when they are sitting at the board, usually have to ask several times how various pieces move; and we, rather than answering them, show them. Explaining to a child, for instance, that a knight moves one square forward and one square sideways in any direction, is liable to confuse him. Even telling the child that bishops always move on the diagonal is liable to confuse him. "Diagonal" is a very big word. But sit the child at the board and let him play and he will soon get the drift. Soon he will be keeping the white bishop on the white diagonal. After awhile he will forget that a knight moves one square forward and one on the diagonal. He will simply see which squares the knight can move to and consequently, which squares it is attacking. Learning chess is mastering a skill rather than understanding an explanation. At times explanation may make the path to mastery shorter, but that is about all. Having a linguistic skill is a higher priority in learning chess than in learning cricket, but in a sense learning to play chess is still wordless.

Rugby football is perhaps somewhere between the two. Rugby is a fairly natural sort of a game. Children naturally run and chase. In

that sense any child can get the hang of it. And that, of course, is all most children do initially; for some of the rules of rugby are quite complicated and most children play the game with only the vaguest appreciation of the rules. Ask a child in a Twelfth Grade rugby team, the most junior level of rugby, what the Tackle Ball Rule is and he will probably look at you blankly. Consequently, when a very junior rugby player is tackled, he is just as likely to lie on the ball or pass it, as he is to release it. Even such elementary rules as the prohibition on passing forward are disregarded by a Twelfth Grade player in the heat of the moment. Yet these youngsters kick the ball, and run and score tries. Indeed, it is not at all apparent, in a game like rugby, that linguistic abilities are of a very high priority at all; and I say that without any intention of disparaging rugby players. Good rugby players do not pass forward in the heat of the moment and do release the ball in the tackle, not because they understand the language, but because they have been drilled to do so. A rugby player's understanding is assessed, not in theory, but in practice. Indeed, it is possible to imagine someone with a brilliant grasp of the rules and tactics of rugby, who consistently did everything wrong on the field. Thus again, playing rugby is very largely wordless.

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And this, of course, must be the case; for we can well imagine teaching a deaf mute too, to play rugby and cricket; and it is not impossible to imagine him playing a decent game of chess. The deaf mute would not have any trouble identifying the ball or knowing what

to do with it. He would probably be able to kick with as much facility as the average person with normal hearing, and run as well too. We cannot imagine him having too much trouble in understanding the object of the game, scoring tries and kicking goals. We should be able to teach him the rudiments of scrummaging and lineout play without too much difficulty. If he was particularly strong and fast, we might even feel it was worth our while to drill him to correctly observe the tackle ball rule. He could become quite a competent player.

But if, as we were tempted to maintain as a result of the embarrassment of the Realist in Chapter 4, we really cannot find our way round the world without language, then this is plainly impossible. And, since it is plainly not impossible, we must conclude that certain features, a large number of features in fact, of the world of the linguistically skilled and the world of the linguistically unskilled, are indeed the same and are taken as the same. They must share with us a common conception of objects, of space, of position and so forth. They must have some notion of sameness to be able to identify two different rugby balls as both rugby balls. They must have vaguely similar intentions. They must intend to score tries when they get the ball in the open and intend to wrestle the ball off their opponents in the lineout. They presumably get roughly similar thrills out of breaking a tackle or sidestepping an opponent, or they would not want to play the game.

And animals too, come to learn of our world through action. They come to see in part as we do, and behave in part as we do,

because we involve them in our activities. We teach dogs to come and go at our command, to sit and to walk when signalled. We "house train" them. We also pet them and praise them and sympathise with them and chastise them and warn them away from cars and stop them from killing chickens; and so forth. In short, we teach them to play all the games that we play, or at least, as many of them as possible. And dogs, for some reason or other, are very good at learning our games. Cats aren't that good and chickens are hopeless. But whatever their respective competences, the behaviour of these domestic animals is extensively influenced by us. Their perception of and response to the world is extensively influenced by us. And it is so influenced, NOT by language, BUT by action.

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Thus our knowledge of the world is not exclusively dependent on language. Rather, we come to know the world and perceive the world, as <sup>the</sup> result of our activities; and language is only one activity among others. To this extent only, the world is language independent. But those activities are themselves dependent on language and it is at this point I now wish <sup>to</sup> turn to.

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Chapter 9.THE LANGUAGE DEPENDENCE OF THE WORLD.

Realism then has been extensively refurbished. We have conceded that there is a world full of objects which we experience. We have even conceded that, to a degree, we learn of this world non-linguistically.

This, however, is as far as our concessions can go. For even if there were a "given" shared by all men it would not mean that the world was language independent. Indeed, even if the "given" were uniform throughout mankind the world would be completely and utterly language dependent. Think of all the things that are in the world; colours, shapes, smells, tastes, feels. Think also of the objects both natural and man made. In at least one sense all these things are language dependent.

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Man made objects or artefacts are particularly interesting because it is hard to imagine any of these things existing without language. For these things needed language to come into existence in the first place. The world is made up of: houses, roads, automobiles, stoves, milk bottles, picks, dentist's drills, respirators, welders, coffins, cradles, heaters, freezers to name but a few man made objects. And all these things were invented purely

because there were people who could speak the language.

After all, just think a moment of the history behind such a simple human artefact as a house. Let us presume, for<sup>the</sup>sake of argument, that man's first form of shelter was the cave. To get beyond these caves man probably had to indulge in quite a lot of complex reasoning. He probably had to realise that his family or tribe could not go on living there forever or the cave would become overcrowded. He might have had to realise that so many people living in the one place exhausted the food supplies of the area. He might have had to realise that the animals, on which he lived, followed a migratory pattern and, to ensure a regular supply of food, he too would have to migrate. He might have needed to realise that caves were cold uncomfortable places in which to live, as well as being difficult to light.

These sort of considerations might well have got him out of caves; but they would hardly have got him into a house. Presumably at first he lived in makeshift shelters, or perhaps tents. But even the making of tents would have been remarkably facilitated by the use of language. Probably he followed the herds. But to actually get down to making a house he had to learn either to cultivate food or animals or both. Now agriculture and horticulture are, I suggest, activities plainly beyond any creature without language. Certainly no creature other than man practices these arts. Not only must you decide to catch an animal to domesticate it, you have to have sufficient foresight not to eat it immediately, and, as some philosophical sage once remarked, no dog knows his master is coming

home the day after tomorrow, let alone in the autumn or the winter. Like notions are vital for the planting of crops. You must, in general, plant in the spring and harvest in the autumn; so you need concepts of time. You probably need notions such as "earlier" and "later" because different crops are planted at different times. You also need some notions of the purpose of seeds and it is very hard to imagine how man worked out the role of seeds without any sort of language.

And it is only after you have mastered all these things, that the idea of a house becomes even relevant. A man would have to be mad to build a house if he was a wandering hunter. Indeed, he would have to be mad to build a house if there was a handy cave. So, he needed to work out that there were advantages to be had from living in places where there were no caves before he started house building. Thus, the advantages of a good water supply and fertile land had to be seen to outweigh the advantages of the place ten miles away where, the water was brackish and the soil stoney, but where there was a nice big cave.

And, if all this seems very ho hum, it should perhaps be remembered that in various parts of the world people have gone on living in caves right into the Twentieth Century. A good many more people build their houses as though they are caves on top of the ground. So caves were probably not that easy to tear ourselves away from. We probably needed a lot of good reasons and a fair bit of resolution -- an ability to say it's tough at the moment but it will get better later -- to get round to house building. So, the chances

are, such elementary artefacts as houses only came about with the aid of language.

Roads are even more an artefact of civilisation, and hence language, than houses. Tracks are not necessarily so, though they indicate a settled way of life. But roads are necessitated only by trade, military conquest and communication. Any large scale movement of goods is obviously easier if there is a relatively smooth surface to travel on. This is especially so when one of the means used for transporting goods is the wheeled vehicle. And it is inconceivable that the wheel could have been invented by a people without language. An enormous amount of speculation must have occurred before the first wheeled vehicle evolved. Also, a reasonable level of craftsmanship must have existed and the craft traditions would have needed language, both to evolve and to be perpetuated. And who could have conceived of conquering people without language? Conquest is a nebulous and abstract notion, far different from attacking a neighbouring tribe for water or women or cattle. Conquering a people is a matter of stealing their souls; of enforcing your culture on them, for the purposes of military or economic gain or out of a mere sense of cultural superiority. You need a sense of personal identity for this, as well as a sense of distance and time. You need to know that the world is made up of little bits and pieces, some of which are very far away. You need notions of comfort and wealth and the strategy of keeping potential enemies as far from your border as possible. And all these things make the need for communication more urgent. You need to find out quickly when your enemies are planning an attack or trying to stir up trouble among the conquered races to

stop you from retaliating to their attacks. Roads not only make it easier for messengers to travel, but show them the way they need to go. So, even so simple a thing as a road is the culmination of centuries of language use.

And how much more is this true of our modern artefacts which are the product of scientific knowledge. Consider all the abstract laws on which the electric jug or the motor car is founded. We need to have precise notions of pressure and combustion, notions which would not exist if it were not for the specialist scientific sub languages we have evolved for the purpose. Even our common language does not have precise enough notions for the prosecution of scientific speculation about combustion. To devise the electric jug we need the whole language of Newtonian physics and a great deal of other jargon besides. The modern world is inundated with artefacts that could not have existed without language.

Thus all man made things, from almost the most primitive to the most sophisticated, evolved in conjunction with language. Even the most simple things prove to have a rich and complex cultural background, a background of assessments and plans which could hardly have taken place without language. In this way the world of artefacts is indisputably language dependent, in so far as without language, we would have had few if any of them.

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But things are not the only thing dramatically influenced by

language. People themselves are shaped by language.

Consider what appeals to many as one of the crudest forms of human behaviour, war. Some men were doubtless naturally brave, or aggressive; but how could we produce a class or a race or an army of brave men without a language? We need to be able to say things such as "Your country needs you!" to encourage people to fight in the first place. We need to be able to point out the necessity for fighting, whether the reason is to repel the barbarian or whether it is because, if you don't fight, you'll be shot for cowardice or desertion or both. We need to maintain discipline and unity; and one way of doing this is reassuring people before the battle. We need to be able to say: "Don't worry, everyone has the jitters before the balloon goes up. Once the action starts you'll get carried away by the excitement." If we couldn't say these things a good number of green troops would flee before a shot was fired. Moreover, if bravery begins in the nursery, then we need linguistic abilities to inculcate this too. We need to be able to say when little Johnny stubs his toe; "Don't make such a fuss. It doesn't hurt that much." And when little Johnny goes to school and comes back with a black eye, received at the hands of the local bully; if we wish to cultivate a sense of manly self reliance in him, we need to be able to say to our concerned spouse, who thinks we ought to ring the police or beat the bully ourselves: "He'll just have to take care of himself. I'm not in the business of encouraging him to believe that other people can solve his problems for him." Such distinctions, subtle or not so subtle, allow us to turn our children into mice or men, homicides or saints. Thus, brave behaviour is in

many cases, born and reinforced because we have linguistic skills. Our language allows us to produce Spartans, to encourage the wavering, to persuade the skeptical to stand firm, and so forth. It is language that makes bravery a human option.

And if we turn to what is, in a sense, the other side of the coin, human love; we find that too has probably evolved with language. Certainly it has changed over the centuries as our language has become more flexible and versatile. Even the most cursory examination of Homer reveals, that the male Greek protagonists in his stories did not love their wives in our sense of the word. Most of the generals at Troy had concubines. Some supposedly took captured Trojan women home as concubines. But their wives were not expected to behave in this way. When Ulysses got home to Ithaca after twenty years he expected his wife to be spinning at the fireside; even though he had been in and out of bed with every hour between Troy and Ithaca. Moreover, he was enraged when he found that the local swains were trying to get off with his particular piece of property and killed the lot of them. His wife might have been a prized object, but she was still an object. She was hardly the singular and unique person who was his spiritual complement.

Yet by the early seventeenth century this had all changed. Consider this extract from John Donne's poem The Extasie.

Our hands were firmly cimented  
With a fast balme, which thence did spring,

Our eye-beames twisted, and did thred  
 Our eyes, upon one double string;  
 So t'entergraft our hands, as yet  
 Was all the means to make us one,  
 And pictures in our eyes to get  
 Was all our propagation.  
 As 'twixt two equall Armies, Fate  
 Suspends uncertain victorie,  
 Our soules, (which to advance their state,  
 Were gone out,) hung twixt her and mee.  
 And whil'st our soules negotiate there,  
 Wee like sepulchrall statues lay;  
 All day, the same our postures were,  
 And wee said nothing, all the day.  
 If any, so by love refin'd,  
 That he soules language understood,  
 And by good love were growen all minde,  
 Within convenient distance stood,  
 He (though he knew not which soul spake,  
 Because both meant, both spake the same)  
 Might thence a new concoction take,  
 And part farre purer than he came.

This, soaked if not drowned in Neo-Platonism, is a far cry from the savage pragmatism of Odysseus. And the origin of these feelings is undoubtedly linguistic. For one thing, the poem depends for its very being on the separation of body from soul, a notion which has an enormously complex philosophical background. (And surely, no one is about to suggest that we can philosophise without words, even though it might be argued that some philosophers would do better if they did). Surely too, the notion that love is largely a spiritual matter, that lovers can become "all minde" and so unite, is both alien to the early Greeks and simply inconceivable without language. Indeed, the very notion of two lovers lying on a grassy bank staring into each other's eyes, is so saturated with convention that the situation could not arise except in a very formal and conventional society -- and forms and conventions are themselves the products of language. Thus love is both changed and created by language.

And what of the highly complicated business of loving our pets? I suggest that before we begin loving our pets we must have some notion of the equality of all living things. And equality is, in this sense, a highly abstract notion. A non linguistic being possibly might be able to see that two mammoths were roughly equal in size, though philosophers rightly suspect even this, but he could never come up with the notion that living creatures were equal irrespective of their size, shape and productivity. The very notion of such equality is in some senses irrational; for it says that all people are equal irrespective of how unequal they may be. The cripple is equal to the Olympic Athlete, the Downes Syndrome victim to Einstein. But if we compare the appropriate predicates of these, the individuals in these two sets, we will find a very great many that are direct opposites. We have to resort to history to understand the notion of equality and we have to trace a very complex chain of events, perhaps starting in Ancient Greece or perhaps with the Germanic tribes. Then we need to turn to England and observe the slow and institutionalised wresting of power from the monarch and the ideological changes that accompanied such a power struggle. We must note the role which the Calvinist religion played in the ideological justification. We must observe the economic decline of the nobility and the need to expand the economic base of the government. We must observe the effect of the egalitarian ideas of the Enlightenment. And so forth. And out of all these things arose our notion of equality; and all these battles required words to an even greater degree than they required guns.

Thus, our peculiarly English attachment to our animals and the

peculiarly human behaviour of many of our animals, rests on our linguistic competence, our ability to expand notions, to generalise and so forth. The very nature of man is altered and transformed by words.

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Of course those who say that the world, in its most essential aspect, is language independent might readily concede my points about human nature and human freedom. They can say that man is an exception and somehow at least a little outside nature. But they can still maintain that we see all objects, whether natural or man made, without being influenced by language at all. For, while artefacts are indeed dependent on language for their conception and manufacture, once they are made, they exist in the world like any natural entity. Thus there are trees in the world absolutely independently of the language we speak; and once a motor car rolls off the assembly line, it too exists in such a state of absolute independence. Once these entities are there our language simply has to take account of them, for they exist in their own right.

However, I see no particular plausibility in these suggestions. Suppose I go into the jungle and make contact with a tribe which has had little or no contact with Europeans. I win their confidence and live with them for several months. During that time I realise the language structure of this tribe is much the same as Indo-European languages. I therefore select one particularly friendly and enthusiastic tribesman and teach him some of my language, a process

made much easier by the basic similarity of the two languages. Hence he comes to learn the words "hut" and "roof" and "wall" and so forth. But during the time I am with the tribe I keep from them all knowledge of writing.

At the end of my stay I arrange with the partly bi-lingual tribesman to return to civilisation with me, at least for a time. He is, of course, much amazed and a little frightened at what he sees. However we do a lot of pointing and labeling when we first arrive. The next day I take him to my office. He begins pointing and labeling. But my office has a blackboard in it and when he comes to that he calls it a wall. I am just about to correct him when I pause, for of course, to him, it is a wall. His people do not have a written language so he knows nothing at all about writing. What else then can the green board be, but a wall? His language rules the possibility of blackboards out in advance. Blackboards are just not the sorts of things that can exist in his language. Where I see a wall with a blackboard on it, he sees a wall with another bit of wall on it, or one wall with a square of a different colour in the middle.

Now I am fairly certain, that in some sense of the word "see," we both see the same thing. We both see what I call a blackboard and he calls a wall. But, in a completely different sense, we see completely different things, because he sees a wall and I see a blackboard; and moreover, what we see is entirely determined by what entities are allowable in our respective languages. The world itself is transformed by language.

The same situation also applies where natural objects are concerned. Suppose I again go on one of my anthropological junkets and find another very isolated people. I settle in with them. Their language it transpires, after many months research, is very different from my own. Where my language tends to group all sorts of widely different phenomena as objects, their language tends to view things as processes. Whereas in my language; rocks, waves, trees and people are all objects: in their language; rocks, waves, trees and people are all processes. Thus a rock is "a withering away of outthrowness from bigness to littleness". And a tree is "a reaching out of the earth which in the end finds only earth". Thus, whereas when I see a tree I see something whose changing qualities do not spring necessarily to mind, this people see something in a constant state of flux. Indeed, it is probably a bit bold to say they see "something" at all, for they see, not strictly things, but actions.

And it should be noted that there is nothing particularly absurd about their language (in fact it is a form of Kwakiutl). It strikes us as a little odd that a rock should be looked upon as a process; but we are all tolerably familiar with erosion, deposition and orogenesis. And we must admit that a tree is very much a process. It is continually flowering and seeding and shedding leaves and growing them, as well as multiplying its cells and increasing its size. Nor should the views of these people particularly inhibit them in cropping. They could look upon seeds as catalysts for the earths outgrowing without suffering from crop failure and famine yearly. Irrigation could be looked on as a loosening of the earth so it could more easily outgrow. And how much more sensible is this language in

relation to waves than ours. Waves have no sharp edges and are perpetually gaining and losing material, though our language is prone to make us think of them in the same way as concrete blocks.

So, where I see something that forces the expression from me "a tree", this people see something that forces the different expression, "a reaching out of the earth that finds only earth", from them. What I called in the last chapter, "the cue", provokes a linguistic response. But what the cue is "really" like I have no idea. All I know is that in my language it is laid down that there are objects and in theirs it is laid down that there are processes. I can translate their processes into my objects all right, because I know that in this circumstance I say "a tree"; and he says "a reaching out of the earth which in the end finds only earth". But being able to translate does not enable me to identify the object independently of either language. For one thing, I need to know my language to identify our mutual situation. Even another language, of different grammar to either, would give only yet another translation possibility, not an objective and independent picture of the "real object". Anyway, in this third language trees might be neither objects nor processes; for it is not inconceivable that a language could exist which was radically different from either, and so was untranslatable.

And if all this sounds like fanciful speculation let us get down to some actual cases.

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Colour.

Consider colour for instance. According to Berlin and Kay, (Basic Colour Terms Their Universality and Evolution), there are eleven "basic" colour terms. These terms are: "white","black", "red", "green", "yellow", "blue", "brown","purple", "pink", "orange" and "grey". Not all languages possess all these terms. Some languages possess two, some three, some four and so on. But there are certain restrictions, Berlin and Kay have discovered, on which colour terms a language possesses. These are:

1. All languages contain terms for black and white.
2. If a language contains three terms, then it contains a term for red.
3. If a language contains four terms, then it contains a term for either green or yellow (but not both).
4. If a language contains five terms, then it contains terms for both green and yellow.
5. If a language contains six terms, then it contains a term for blue.
6. If a language contains seven terms, then it contains a term for brown.
7. If a language contains eight or more terms, then it contains a term for purple, pink, orange, grey, or some combination of these." (Basic Colour Terms. pp 2-3)

These rules were found to apply to ninety-nine languages.

Now the obvious question to ask, is whether those people with less than eleven basic colour terms could, in fact, distinguish in some way, between colours which were not marked off each by their own particular name. The answer seems fairly obvious by analogy with our own case. We have all eleven terms in our language, but we all know there are many shades of red, green, yellow and so forth. We see

hundreds of colours but we group them under only eleven terms. The same appears true of people with four or less colour terms.

One of the reasons for believing this, is that people with very primitive colour lexicons perform perfectly efficiently on colour blind tests. As an example take Tiv, a Bantoid language of Nigeria. Tiv is what Berlin and Kay call a Stage II language, one that contains terms for black, white and red only. Here is what Paul Bohannan, a researcher, has to say about Tiv.

---all green, some blues, and some greys are ii. But very light blues and light greys are pupu. Nyian, which covers brown, also covers all warm colours through red to yellow. The distinction between ii and pupu actually is not in terms of colour, but in terms of what we would call shade - darkness and lightness. Very light blue, grey or white are all pupu. Ii means dark and covers all dark colours and black - unless there is a warm colour present; brown, red and yellow are all nyian. Tiv can distinguish colours and do colour-blind tests, but their culture does not require - or allow - that they make some of the distinctions that Westerners make. Westerners are the most colour conscious of peoples. (Basic Colour Terms. pg 25)

The Tiv can be seen, in some sense, to distinguish between colours which are not distinguished in their vocabulary.

That people with primitive colour vocabularies see, in some sense of the word see, the same colours we see, is also shown by the speed with which certain foreign terms are introduced into these languages. The inhabitants of Leyte Island in the Phillipines speak Bisayan, a Stage III Language (white, black, red and yellow). After coming in contact with the Spanish however, they rapidly developed a word for blue and green, the Spanish word "azul", meaning blue in Spanish. There is considerable evidence that a similar transition is

taking place amongst the speakers of Tzeltal, a Stage IV language (black, white, red, yellow and green) who, owing to intermittent contact with the Spanish, now seem to clearly recognise that their green is made up of two distinguishable categories. The Mende in Sierra Leone seem to have derived their word "bulw" from the English "blue"; likewise "bilu" for the speakers of Samal (Mindinao and Sulu). Another word commonly borrowed from languages of European origin is a word for brown. Javanese has the word "tjokolat" for brown. Bahasa, also an Indonesian language, uses the similar word "tjoklat". Both these languages have also borrowed "blue" from English. Malay has similarly borrowed both "brown" and "blue" from English. In one sense of "see" then, people seem to see the same colours.

But, in another sense of "see", this isn't so at all. Suppose I show a speaker of Arunta, an Australian Aboriginal language, three skeins of wool, one black, one brown and one grey and ask him what colour they are. He will reply, without hesitation, that they are all black, for in his language, that is what they are. It is a fact that, according to his language, the night sky, the trunks of many trees and the metal of a dull knife blade are all the same colour. And, suppose I ask a girl who speaks Bisayan and who is wearing a blue scarf what colour her scarf is; she will tell me it is blue. But if I ask her what colour the grass is, she will tell me that is blue as well. It is a fact, that for the Bisayans, the grass and the sky are the same colour. By the same token, to the Bisayans things that are dark blue are not blue at all, but black. So, in this sense of "see", people with different colour lexicons really do see the world

differently. They see a sameness in the colour of the grass and the sky and a complete difference in colour between a blue scarf and a dark blue scarf. Their world is radically different from ours because of the different distinctions they make. The facts are different because the language is different.

Thus the facts about colour alter dramatically depending on what language we speak. The same coloured object might be black, red, yellow or brown, depending on what language we speak. And it is pure absurdity to suggest that, for all that, it might really be red. No colour is ever "really" anything -- not even a colour necessarily. After all, the colour category called Stage I by Berlin and Kay, might arguably not even be a colour category. All Stage I languages have expressions for lightness and darkness only; and it is only when these categories are incorporated into a fully fledged colour language that they become the categories of black and white. Colour, one of our fundamental categories, is completely determined by language.

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#### Natural Classes.

And if we step a little higher up the ladder, from qualities to objects, the situation is no better. Some Malayan languages, I am told, have more than fifty different words for palm trees, while English has but one. (Our zoologists doubtless have more than one but that is of little relevance here.) Moreover, the Malayan

languages do not have any group noun for palm trees at all. Thus, while it is a fact for English speakers that palm trees exist, it is no sort of fact at all for Malaysians. It is a fact for us that trees A, B and C are palm trees, trees of the same sort; while for Malaysians trees A, B and C are trees of different sorts. They do not necessarily have more in common to the Malay, than bluegums, pines and willows have to us.

Now, we may feel disposed to say in some moods, that this is merely a matter of linguistic convention. Unfortunately, no such smart escape is available. If we go into the jungle with a Malay and come across palm tree A, we may mention to him that it is a palm tree. He will perhaps accept this. Then, if we walk a few more paces and come across tree B, we will again tell him it is a palm tree. Now here, he will tell us we are wrong. After all, we called the last one a palm tree and that was a completely different tree. The leaves on this tree are half as wide and twice as long as those on the last tree. The bark on this tree is much smoother than the bark on the other tree. Parrots nest in these trees, but never in the other trees that we Europeans want to call by the same name. How could these two trees be called by the same name when there are so many important differences? The Malayan simply concludes that Europeans are stupid and get their facts wrong. We may notice the similarities of the two trees, the Malayan notices no such thing. And even if we patiently explain to him the rationale behind our category of "palm trees", it is not irrational for him to reply; "So much the worse for you. You're simply wrong." For by his lights we are indeed wrong, factually wrong. His facts are rooted in his

language and ours in our language.

The same is true if we consider snow. We have one word for snow but the Eskimos have many. So, if we look out the window and say; "The weather's the same as yesterday. It's snowing again." an Eskimo would be entitled to regard us as getting our facts wrong. To him the weather is not the same as yesterday; for yesterday there was one sort of snow and today there is another. Different sorts of snow are important to an Eskimo. Some sorts of snow are perfectly safe to go out in, some not. Some snows are good for fishing and some for hunting. Some snows make good Eskimo icecream and some don't. But to us it is all the same cold inconvenient stuff. It doesn't disadvantage us if we lump it all together. For him such a thing would be silly. It would be telling lies about the world.

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Thus, even if seeing were a sort of mirroring and we all had the same mirror images, irrespective of language, the world and the entities in it would still be importantly language dependent. We would classify and talk about the world in completely different ways, according to the language that we spoke. Language determines what objects things are and indeed whether things are objects. Language determines what colours things are and perhaps whether things are coloured at all. Language determines facts. Language determines identity and difference. In this respect the world is completely and utterly language dependent.

But, if the Realist's model of mirroring is correct, I suggest also, that the world is language dependent twice over. For, if that model is correct, the actual consciousness we have of things is language dependent too. So people with very different languages could have very different mirrorings when looking at, what we might like to call, the "same scene".

But how could this be? Well, William James once insisted that when children first emerge from the womb they are faced with a "blooming, buzzing confusion" of sound, colour and so forth. (The Principles of Psychology, Vol I, pg 488.) They see everything and nothing. But gradually as they grow and develop, always of course in a particular environment of action and language, the world COMES INTO FOCUS. They begin to pick out objects, they begin to see the sun and their parents' faces and so forth. Out of the "blooming, buzzing confusion" they have organised pictures. Certain parts of the confusion are neglected, certain parts are highlighted and certain parts are dimmed into the background. If you wish to use an artistic analogy, the world has changed from a Jackson-Pollock to a Rembrandt. And James' view seems quite probable if we consider a couple of examples. First, consider Jastrow's "duck-rabbit", so well exploited by Wittgenstein. The duck-rabbit is really only a squiggly line and a dot. Yet we see it as either a duck or a rabbit. Sometimes it looks like a rabbit and sometimes a duck. If we put in a rough sketch of a pond in the background it would probably be very difficult to see it as a rabbit. But if we put in a cabbage patch in the background it would probably be very difficult to see it as a duck. Equally however, we might see it as nothing at all. We might

see it simply as a squiggly line and a dot. This would certainly be the case if we had grown up in an environment where there were neither ducks nor rabbits: and would perhaps even be the case, if we had developed in an environment where there were rabbits and ducks, but no pictures of rabbits and ducks. (Indeed, if we had been raised in a culture unfamiliar with lines and dots, as well as ducks and rabbits, we might not see even the line and dot.) Seeing is obviously a matter of MAKING SOMETHING of certain cues.

Also, think of Frank Ebersole's example of the arch fingerprint:

Pointing to a sky nearly full of cirrus clouds one day, my friend Kleinmetz says to me, "Look at those clouds. There is an arch fingerprint. Do you see it?" I look curiously and politely, but I must ask, "What on earth is an arch fingerprint, and what does it look like?" Kleinmetz tries to describe the pattern of an arch print. I continue looking, but with no success. I cannot see it. Kleinmetz is so excited about the phenomena that he takes a Polaroid photograph of the cloud, and after its three minute development he shows me the photograph. "There it is--clearly--in the photograph," he says. I can no more see it in the photograph than I can see it in the sky. Later Kleinmetz takes me to his home and shows me a book with drawings of fingerprints. He shows me the drawing of an arch fingerprint. I stare a long time, running over the configuration of its lines in my mind. Then he shows me the photograph he has taken of the cloud. And instantly I can see the arch fingerprint in the clouds. First I could not see it, and now I can." (Language and Perception. pg 82.)

Here we have someone actually learning to see something. They are advised that there is something there to see because of the language and behaviour of a friend. But they do not see it immediately. Rather they try to see it. They squint, try to see a pattern in the lines, pick out contrasting areas of light and dark and so forth. Then suddenly it all drops into place and they see. Something new seems to have SPRUNG INTO EXISTENCE. Or perhaps we want to say, as

we said before, that something has been BROUGHT INTO FOCUS. But, whether these things have sprung into existence or been brought into focus, the fact of the matter is, that we are aware of them because of the linguistic and physical activities of others. Others tell us of their existence, they point to where they can be located, they show us abstractions highlighting their essential features; and, partly deliberately, partly inadvertently, they FORCE us to see them by their speech and action.

To end with, return to the allegedly "pre-linguistic apprehension" of the deaf mute. We have every reason to believe that the deaf see the world as we do. And naturally they do for teaching them is easy. We can teach a mute to pick red, white and blue carnations quite quickly. We simply correct him everytime he makes a wrong choice of either variety or colour. And this puts great pressure on him to find some way of identifying what is before him. He must make sense of what is there and if he cannot clearly see anything, then he must set about seeing something. But, if our language and behaviour does not discriminate between red white and blue carnations and other carnations; and between red white and blue carnations and red white and blue polyanthus; then there is no way in which a mute can be taught this sort of behaviour at all, for he has no teachers. And if, as I suggest, we need to learn to see, then there is no way that the mute can learn to see red white and blue, or to see differences between varieties of flowers.

Now all this sounds a little bizarre. It seems absurd to think of a reasonably mature deaf mute going into the garden and trying to

see red white and blue carnations. We feel this way of course, because by the time the deaf mute gets to go into the garden and pick flowers, he has already learnt to see everything that we can see. Indeed, by the time he gets to go anywhere at all, the deaf mute can probably see the vast majority of things that we see. This is only a reflection of the fact that skills in seeing, like skills in language, must be <sup>c</sup>acquired very young or not at all. Some children, like the Wild Man of Auvergne, never acquire language. But then, people who have had corneal grafts never seem to <sup>c</sup>acquire sight either. Miss H.D., quoted in Chapter 2, never got to see anything, despite the fact that the medical authorities believed she was physiologically normal. That was because she had never LEARNED to see. Her visual skills had not developed alongside her linguistic skills, so she never <sup>c</sup>acquired the knack of BRINGING THE WORLD INTO FOCUS. The world for her was only ever blobs and blurs.

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And, if this is so, it seems to me that the world is about as language dependent as it could possibly be.

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Chapter 10.CONCLUSION.

Our contention then in Chapter 1, at the end of the story of the nudist monarch, has proven to be correct. We must report what we see and do so honestly, otherwise we shall appear foolish.

Obviously however we must be careful. We must avoid falling into the trap of Metaphysical Realism which is plainly a foolish alternative. BUT Realism itself is not at all foolish. Indeed, the notion that there must be some sort of uniform cue for all speakers of a given language is the ONLY way we have of accounting for the uniformity of our physical and linguistic behaviour. The only other alternative is to remark on our uniformities of speech and behaviour BUT to avoid any explanation for these uniformities; which is at best unsatisfying and at worst simply foolish.

After all, to return to an earlier example; if you and I did witness the behaviour of the Parisian mob on July 14th 1789, or even saw a reconstruction of that behaviour on film, we might be in two minds as to whether the Bastille was "stormed" or "occupied"; for these would amount to legitimate possible descriptions. But we should not accept, as a legitimate possible description of this behaviour, that it was the Parisian mob viewing a pornographic video or worshipping Shirley Temple's ankle socks. For anyone who made these latter claims would be, at the very least, breaking the rules of our grammar. When speaking English "watching a pornographic

video" is just not a possible description for the behaviour of this particular mob. The image may not stipulate specific facts; but at least it limits us to certain alternatives about which we can have an intelligible discussion.

Of course; someone who made one of the outrageous claims above could say, in his defence, that he was trying to found a new grammar related to English. That would be perfectly reasonable. The English language has no monopoly on the expression "The Parisian mob is watching a pornographic video". That is why I observed in the previous chapter that the world was utterly language dependent. But then, since such a person would not be speaking English, that would be the end of that.

It also seems fairly clear from what has been said, both in the last chapter and also earlier in Chapter 2, that what we see is influenced by learning and language. To use but one more example: when we climb a high place and look down, the people below us do look like ants. We see in perspective. But a steeplejack, who is used to heights, does not see in this way at all. To him the people below look "normal". He has learnt to see in a different manner to us. What we see is plainly <sup>c</sup>acquired; and that <sup>c</sup>acquisition is dependent on language and our various activities.

So what we see, the "given", is dependent on language and our various activities. In this way the world is, as Existentialists claim, both "given" and "constituted". It is both absolute and relative if you like. And this "given" explains, both how we come to

learn speech and why our speech activity is uniform and consistent.

Thus REALISM and the LANGUAGE DEPENDENCE OF THE EXTERNAL WORLD go hand in hand, despite appearances to the contrary. Their apparent antagonism has only served to mislead us in the past: and so has made the notion of language dependence seem far more strange and disturbing than it in fact is.

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