

Lecture Nine

(a) General Doubt

1. I have shown that our explicit beliefs are rooted in our mode of articulation. Once we have ~~taken~~ adopted a particular idiom for expressing our thoughts, the scope of what we may talk and discursively think about is essentially delimited and so is in consequence also the range of beliefs which we may hold in articulate form. We may exercise doubt within a fixed demonstrative framework, but major movements of doubt usually involve a change in our conceptual system and affect the very criteria of demonstrability. When a single proposition is doubted within a fixed framework we are expressing a belief about its relationship to a wide range of other propositions that are not doubted for the time being. When we call in question our hitherto current conceptual framework, our doubts affect ^{as} the ~~our~~ ^{though} are nevertheless fragmentary. We are never without an idiom of belief and the new idiom grows within the old. We do not ever uproot the ~~flowering~~ ^{flourishing} plant of our beliefs and grow a different one from seed instead. The change resembles rather the sprouting of new twigs in the crown of a great tree, from dormant buds quickened by a flow of fresh sap, while branches that were in full leaf before now wither into dead wood, to be ~~soon~~ presently cast off in the wind. Doubting is done in the very language which is being reformed by belief, and hence in the midst of doubt we are in belief.

2. We have seen that in a system of implicit beliefs each is supported by the others by a circular process of inference. A complete and consistent deductive theory, such as elementary geometry, offered an exceptionally clear-cut example of such a system. If we doubted every single one of our beliefs in turn, each may in turn be confirmed by circularity, which could never

This argument
 reated after
 subsidiary and
 belief as held
 of explicit
 Implicit of explicit beliefs

should be
 "was of
 scale aware
 doubts as in shment

conceivably impair, but would rather strengthen at every consecutive step, our belief in the system as a whole. A system of implicit beliefs cannot therefore be comprehensively called in question by a series of consecutive doubts pursued within the system.

3. What meaning can we attach in this light to a principle of universal doubt? If the reconsideration of any single belief is undertaken in the assumption of an overwhelming background of unquestioned beliefs, then the latter beliefs must not simultaneously be alleged to be doubtful. Doubt, conceived in these terms, cannot be simultaneously applied to all our beliefs. For, though every element of our belief can conceivably be confronted in its turn with all the rest, it is inconceivable that all should be subject simultaneously to this operation. In a pile of bricks we can single out any particular one to lie on top of all the rest, but we cannot require that all should be on top of all the rest at the same time. In this sense an allegation of doubt in respect to all our beliefs at the same time is logical nonsense.

4. This is not to say that a system of beliefs can never be doubted as a whole. Euclidean geometry was called in question as a whole and reduced to an optional status by the establishment of Non-Euclidean geometry. So we may conceivably feel inclined to reconsider one day our acceptance of mathematics as a whole. Gödel has proved that no theory which comprised arithmetics could be proved consistent except within a wider theory which in its turn could be proved consistent only within an even wider theory, and so on, indefinitely. However far we went back, the proof of the consistency of any theory would have to rest ultimately on a theory whose consistency was unproven.

Such a result might one day discourage all further mathematical enquiry, in the way the study of algebra was discouraged in ancient Greece by the discovery of a fundamental discrepancy between the range of geometrically defined lengths and the range of fractions formed from natural numbers. The deductive sciences might then

11

*language moves in arbitrary ways, may be abandoned
altogether to express a whole range of thoughts
of which no explicit expression can be given.
Conversely, it may be found that the language
itself is not able to be understood generally
as an element of awareness.
Idiom is to be understood as a subsidiary
means of articulation.
(Nihilistic doubt)*

be abandoned altogether as being too uncertain in their conclusions to warrant the continued expenditure of mental effort on their pursuit. Most people can do without much mathematics and mathematicians could follow the general example by turning their interest elsewhere.

Such speculations may serve to indicate a meaning of universal doubt which is free from self-contradiction. We may imagine an indefinite extension of the process of abandoning hitherto accepted systems of articulation, together with the theories formulated in these terms or implied in our use of them. This kind of doubt might eventually lead to the relinquishing of all existing means of articulation without compensation. It would make us forget all idioms used until now and dissolve all concepts which these idioms denoted. Our articulate intellectual life which operates by the handling of concepts would thus be reduced to abeyance for the time being. In contrast to the doubting of particular beliefs which as a rule does not affect the total volume of our beliefs, this process would frontally attack and effectively reduce this total.

I know that such conclusions are repudiated by the adherents of the principle of doubt, but I can see no grounds on which they can dissent from them. For comprehensive doubt is the only manner of doubting which could truly liberate our minds from uncritically acquired preconceived beliefs. If we cannot accept the justification of holding beliefs uncritically then our only logical alternative is to wipe out all such pre-conceived beliefs. And if this proves difficult in practice, we must at least recognise it as our ideal of perfection. We must accept the virgin mind, bearing the imprint of no authority, as the model of intellectual integrity.

5. At the risk of labouring the obvious it should be made quite clear what exactly is implied in the assumption of a virgin mind which could shape its judgment on all questions without any

preconceived opinions. It cannot mean the mind of a new born child, since this yet lacks sufficient intelligence to grasp any problems and discover any solutions for them. A virgin mind must be allowed to mature until the age at which it reached its full natural powers of intelligence, but would have to be kept unshaped until then by any kind of education. It must be taught no language, for speech can be acquired only uncritically and the practice of speech in one particular language carries with it the acceptance of the particular ^{theory of the} universe of discourse postulated by that language.

course Such untutored maturing of the mind would, however, result in a state of imbecility. The emotional and appetitive impulses that are inherent in animal life will ^{inevitably} pour into such channels as are available to them. In the absence of a rational conceptual framework to guide them, their manifestation will not be sceptically restrained but frantic and inchoate.

We can observe this even in animals well below the human level. I have mentioned in Lecture II how chickens hatched in an incubator were raised by Brückner in solitary confinement during the first fortnight of their lives. When confronted for the first time with other chicks, the animals brought up in isolation were perplexed and behaved confusedly, reflecting desperate consternation. "Overcome by fear, bewildered and helpless, they ran up and down an opposite wall in search of escape . . ."

Some cases are recorded in which children have been reared by animals, particularly by wolves. The best documented and the most recent cases are those of two native children in India which were taken from a wolf's den in 1920 and lived afterwards in the Orphanage of Midnapore in the province of Bengal. A complete diary of their rescuer, the Rector of the Orphanage, was published under the title "Wolf Children and Feral Man" by R.M. Zingg of the University of Denver in 1942. When rescued, the children were animals, going on all fours, feeding on raw meat, lapping their

drink, and having many other habits acquired from the wolves. They had no language but howled at night like wolves. One girl, aged 8 when rescued, lived for another nine years. After many months of massage she gradually learned to walk erect but continued to run on all fours. In the orphanage she slowly acquired human habits and attitudes as the result of human contact, and she got a vocabulary of 30-40 words but never learned to form sentences.

In the absence of human intercourse these wolf children formed such lupine concepts as the wolf pack which adopted them would have suggested to their budding intelligence. Their virgin minds did not develop a new set of interpretations in place of those which a traditional education would have stamped upon it. On the contrary; not having been taught the use of the intellectual tools which society would have provided for them, their mental development was arrested at the level of inarticulate children. Instead of inventing conceptual tools of their own they lost their chance of ever learning how to use such tools at all. And lacking the guidance of any, however imperfect, set of human notions they were overcome and ridden by blind fears and furies.

↓ down Yet even such dumb creatures would not be prevented from forming conceptions which seriously prejudiced a proper critical detachment. Some traditional errors by which science and philosophy were most gravely hampered, were rooted in our instinctive manner of seeing things. The contrast between a body 'at rest' or 'in motion' is compelling to our perception. A number of animals are blind to the particulars of their surroundings so far as these are at rest, but show a keen perception of any moving objects. In fact to them, an "object" is an "object in motion". A similar effect lies in the distinction instinctively drawn in all human perception, between "figure" and "background". What we regard as "figures" in a picture we see as coherent entities, while the "background" is given an essentially undefined character. Correspondingly, what is large and undefined is always perceived

as being at rest. If you look down from a bridge spanning a broad river - say facing upstream - and your field of vision is almost filled with the sight of the river, its waters appear immobile and you feel yourself flying upstream. If then you lift your eyes so that the river banks and the land beyond them are included in your glance, you feel your own motion brought to a standstill, and at the same moment you see the river starting to flow again. I recall how as a small child I sat holding on in terror to a bench which seemed to tilt me out on the floor of a room. Actually the room itself, forming part of a fun-fair, turned around under the bench, which remained stationary as it was fixed in space.

Thus the very fact of seeing things prejudices in favour of a mistaken view of the universe. We see the earth at absolute rest, with the sun, the moon and the stars swinging round it as their centre. The geocentric world view, as presented for example by the Bible or by Aristotle has a firm support in our most primitive perceptive prejudices. Indeed, even after the eventual abandonment of the heliocentric system and the final victory of Copernicanism, more than a century after its author's death, the assumption of a world centre at absolute rest had merely shifted from the earth to the sun. Newton regarded the solar system as fixed with the rest of the Universe moving around it. The assumption of some fixed centre in the world which by its resting quality allows to define motion in absolute terms, is embodied in a more abstract form in Newton's doctrine of an immovable space. "Absolute space, in its own nature, without regard to anything external, remains always similar and immovable."⁶ This framework served as a basis for Newton's mechanics. It continued to be accepted as self-evident by succeeding generations and its unproven implications were not effectively exposed until the appearance of

⁶ Newton, Principia Scholia ad Defin.

Extracts!

Sea sickness can be irresistibly engendered by such means.

Mach's 'Mechanik'. It was finally discarded only in Einstein's general theory of Relativity. Today the Newtonian framework is condemned as the product of uncritical thought. Yet this error can be traced back to the lowest level of visual perception and would therefore be committed even by children grown up among wolves or nursed to maturity in the solitude of an incubator.

If the ideal of a virgin mind is to be pursued to its logical limit we have to face the fact that every perception of things, particularly by our eyes, involves implications about the nature of things which could be true or false. Whether we see an object as black or white is not determined by the amount of light it sends into our eye. Snow seen at dusk appears white, a dinner jacket seen in sunshine appears black, though the jacket in this case sends more light into the eyes than the snow. *We say black or black and white*
is white, but whether
we see an object as black or white is decisively affected by the
whole context in which the light from the object reaches our eyes.

The way we embody this context in our perception of the colours, sizes, distances and shapes of the perceived object is determined by our innate physiological inclinations and their subsequent development under the influence of our experience. My perceptions today as an adult are different from those which I had as a new born baby, when I was as yet unable to fix my gaze on an object and could perceive neither distances nor shapes, and much of this difference is due to the functioning of convergence, adaptation and other more complex sensory processes which are performed according to principles which may be false. But if all these functions could be eliminated by training myself to look at things again with unperceiving eyes, letting their images sweep across my retina, like a motion picture which is continuously slipping through the gate of the projecting lantern, I would not feel assured of gaining access thereby to a core of indubitable virgin data. I should be inclined rather to regard the process as a blotting out of my eyesight, such as the fakirs practice when they

(16)

reduces elements to subsidiary
status and picks up the unobserved
(20 feet)

by focal attention

go into a trance with open eyes. The result would indeed be similar to a state of cortical blindness. Nor could I recover my powers of perception by some critically controlled process, but only by an effort to see again by using my eyes, helped by the postural adjustment of the head and combining visual impressions with observations of sound, touch and the motions of my body, according to a process which embodies a whole system of implications to which I must uncritically commit myself for the time being. We can reduce the sum of our conscious acceptances to nil by falling asleep or going into a trance, and there are various intermediate stages of stupor to which we can descend. But any given range of awareness seems to involve a correspondingly extensive set of uncritically accepted beliefs.

Thus the programme of comprehensive doubt collapses and reveals by its failure the fiduciary rootedness of all rationality. *Fides quaerens intellectum.* If left strictly untutored, our minds would not achieve ideal critical detachment but sink into beastlike ignorance, swayed by fear, hunger and fury.

6. Far be it from me to suggest that those who advocate philosophic doubt as a general solvent of error and a cure of all fanaticism would desire to bring up children without any guidance by their environment. I am only saying that this would be what their principles demand. What they actually want is not expressed but concealed by their declared principles. They want their own beliefs to be taught to children and are convinced that their general acceptance would save the world from all error and strife. In his Conway Lecture of 1922, republished in 1941, Bertrand Russell made this clear in a single sentence. After condemning both Bolshevism and clericalism as two opposite dogmatic teachings, which should both be combated by philosophic doubt, he sums up by saying: "Thus rational doubt alone, if it could be generated, would suffice to introduce the Millennium".* The author's

* Bertrand Russell, "Let the People Think", 1941, p.27.

intention is clear: he intends to spread certain doubts which he believes to be justified: He does not want us to believe the doctrines of the Catholic Church which he denies and dislikes and he also wants us to resist Lenin's teaching of unbridled revolutionary violence. These disbelief^s are recommended as 'rational doubts'. *On the other hand by equating* 'Philosophic doubt' is equated to 'rational doubt' and is thus kept on the leash and prevented from calling in question anything that the sceptic believes in or *from* approving of any doubt that he does not share. The Inquisition's charge against Galileo was based on doubt: they accused him of 'rashness'. And the Pope's Encyclical 'Humani Generis' issued in 1950 continues its opposition to science on the same lines, by warning Catholics that Evolution is still an unproven hypothesis. Yet no philosophic sceptic would side with the Inquisition against the Copernican system or with *Pius XI* against Darwinism. Lenin and his successors have elaborated a form of Marxism which doubts the reality of almost everything that Bertrand Russell and other rationalists teach us to respect, but these doubts like those of the inquisition are not endorsed by *naturalists*, apparently because they are not 'rational doubts'. Since the sceptic does not consider it rational to doubt what he himself believes, the advocacy of 'rational doubt' is merely the sceptic's way of advocating his own beliefs. Russell's previously quoted sentence should therefore read: "The acceptance of rational beliefs, such as my own, would suffice to introduce the Millennium".

Such a declaration I would regard as both wholly legitimate and would even support to a considerable extent in substance, since I largely share the beliefs held by Bertrand Russell and many other rationalists. But the re-wording would abandon the unsound practice of advocating one's own beliefs in the form of a universal scepticism which we tacitly restrain so that it applies only to other people's beliefs which we do not share. Rationalism expressed in this form would renounce the principle of doubt and face up to its own fiduciary character.

In the times of Montaigne and Voltaire rationalism identified itself with doubt in supernatural things, and rationalists called at this 'doubt' as opposed to 'belief'. This practice was excusable at the time since the supremacy of reason in the conduct of human affairs and the independent standing of science as an application of reason to nature ~~in which the rationalist believed~~ had not yet been effectively challenged by scepticism. In propagating their ~~early~~ beliefs the rationalists were ~~in fact~~ opposing traditional authority on a wide front and could regard themselves as radical sceptics. But the beliefs of rationalism have since been effectively called in question by the re-interpretation of human affairs, including the process of scientific progress ~~by terms of~~ new conceptions which are today embodied in Fascism and Bolshevism. It is ~~patently~~ absurd to oppose such doctrines on the grounds of scepticism. For they gained their present ascendancy only recently by a ~~revolutionary~~ sweeping rejection of Western tradition ~~and~~ while it is rationalism which sides today with tradition - the tradition of the 18th and 19th century - against them. It should also have become clear by this time that the beliefs transmitted by this ~~now~~ tradition are by no means self-evident. Modern fanaticism is rooted in an extreme scepticism which can only be strengthened, not shaken, by further doses of universal doubt.

b). Commitment.

1.) Doubt offers no alternative to belief; the alternative to belief is extinction. Voluntary extinction by complete withdrawal is the ideal of Nirvana, which I do not share. ~~I do not want~~
~~extinction and accept therefore~~ Hence the necessity of believing. This brings me back to the point arrived at in Lecture VI where I outlined the programme of an openly fiduciary philosophy, which would be satisfied with expressing nothing more than the philosopher's own beliefs. In order to proceed further with that programme we must yet deal with the tremendous difficulty in which we found ourselves after its formulation. We must not lose altogether our claim to objectivity. For though the philosopher must know that he is only expressing his own beliefs and claims his right to do this, he does not wish to talk of himself, but of the things he believes in. I have urged in Lecture IV that all declaratory sentences would be more precisely formulated in the fiduciary mode with the words 'I believe' prefixed to them. This conceptual and linguistic reform which ~~attaches~~ links every sentence to a person alleging it, has yet to be supplemented in order to make sure that we are not detaching thereby the sentence from its other pole, to which it claims to make impersonal reference. With this purpose in mind I shall merge the conception of a personal allegation in the much wider concept of Commitment. The word 'commitment' will be used in a somewhat particular sense and serve both to designate a conception which I wish to establish and to imply by its usage my belief in the existence and effectiveness of ~~that~~ ^{the process} which is covered by this conception. I hope to show that a philosophy which recognises commitment in the sense which I have in mind can regard itself as the philosopher's commitment and nothing but his commitment, ~~and~~ avoid thereby both the false claim of strict

impersonality and the reduction of itself, on its own showing,
to an utterance having no impersonal standing.

2. I believe that commitment in the sense in which I propose to use the term should be accepted as standing for a basic notion and that this notion will eliminate several contradictory features in the present conceptual framework which it is ~~intended~~ partly to replace. If commitment is to play this part, it would be a mistake to try to introduce it by any explicit definition and ~~I should seek to establish~~ instead
- (a) by using the word 'commitment' in a context referring to things already known and (b) characterising commitment in terms already in use now. In the course of this process the contradictory features of the existing framework which we are intending to eliminate are bound to become apparent as paradoxes. But seeming contradictions, like for example that of commitment being both personal and impersonal, ~~should~~ will turn out to be no defects of the conception of commitment, but rather of the terms 'personal' and 'impersonal' or alternatively, of the terms 'subjective' and 'objective' when used in the sense in which they are now current.

In my first three Lectures I have enumerated and classified a variety of intellectual performances on a number of different levels. In all these manifestations of intelligence, ⁱⁿ the high and the low, the educated and the innate, ⁱⁿ the articulate and the inarticulate, ⁱⁿ the object-directed and the interpersonal, ⁱⁿ denotation ~~as~~ in creative articulation ^{there was} ~~the~~ ^{embodied} activity of a person ~~embodied~~ and this person was pervaded by a passion. Whether this passion was merely hunger or fear or rose to levels of intellectual torment and creative joy, it carried with it the whole person and expressed his ratification in terms of his very being of the mental act that he was performing. This is one sense in which a person acting intelligently is committed

The personally acknowledged (universal) may be (and often is for a time) recognised only by one person; yet its universal intent remains inherent and may be aspired in the hope of a wholeness of consciousness. This hope (rather than positive confidence or sceptic despair) is the ultimate position of the knower. It corresponds to the teachings of the Church for our relation to perfection: A hope for it as a gift, without the pride of certainty or the fall into despair.

'The relative is objective?' Max Born

personal

subjective-objective

particular-universal

analytic-synthetic?

Commitment target:

a universal which is accredited by a person as sustaining his belief in itself is not a quality of that person; nor can it be said to be merely a construct exhibiting the act of commitment for this act requires the target's existence as external to itself and would be destroyed by acknowledging that its target is produced wholly by itself.

(Continued on top)

to his action and in which commitment partakes therefore of all acts of intelligence.

We shall appreciate this aspect of commitment perhaps more fully by contrasting intellectual performances with other states of mind which though also pervading the whole person, are neither actions nor commitments of the person. Intense bodily pain pervades our whole person yet the feeling of such pain is not an action nor a commitment. Insofar as an impression or affection is regarded as purely passive, as merely happening to or in a living person, it is not a commitment of that person. When someone feels hot or tired or bored, this may pervasively affect his consciousness but this state of mind does not imply anything beyond its own suffering. A man in pain may seek alleviation, a tired man may want to rest and a bored man may seek distraction. But pain, tiredness and boredom can be said to be merely endured. There ~~are~~ ^{can also} purely sensual pleasures which are almost as passive as these ~~troubles~~, but the most intense gratifications of our senses come from the satisfaction of our appetites and are therefore more closely allied to action than mere suffering. Intellectual and even sub-intellectual passions are never merely endured. One cannot be tormented by a problem unless one is struggling for its solution and one cannot rejoice in discovery except by accepting that it is valid. Hunger cannot be conceived except as a desire for food. ^{or vice versa} A hungry child may not know that it wants food and merely feel miserable, but in that case hunger ceases to be associated with any act of intelligence on the part of the child.

On these grounds I propose to draw a distinction between the personal in us which actively enters into our commitments and the subjective in us which merely endures our feelings. This distinction breaks with the general opposition of the subjective to the objective. The personal is neither subjective nor objective, for it is inherent in the commitment situation in which the mind actively ~~surrenders~~ ^{gives itself} to something outside its domain. pause

(12)

A new conception can be illustrated best by such ~~examples~~ ^{paradigmatic} instances in which it is more obviously manifested, than in others. From these

~~for its application to less characteristic cases and thus detect in which it otherwise could not have been felt to be all opposite.~~

The concept of commitment which I have in mind is most clearly exemplified by the act of consciously solving a problem. While the capacity for such feats emerges only at a rather elevated intellectual level, the characteristic features of problem solving tend to disappear once more as we move on towards an ideal of intellectual perfection. Let me indicate briefly ~~These two extremes of the intellectual scale between which lies the range of fully developed commitments, may be characterised as follows.~~ ^{of the scale}

At the lower end we have the satisfaction of appetites.

Processes of this kind, as for example the selection of food, may show delicate discrimination, but the capacity for this is largely innate ~~and not~~ ^{rather than} guided by conscious personal judgement. Similarly, the act of perception by which we notice objects and identify them at a glance, though it is a very complex performance and may represent a marked effort of

intelligence, is carried out without deliberation and usually ~~brought to completion~~ ^{without completion} without any conscious decision. Appetites and purely sensory reactions do embody personal actions, but they are those of a person within ourselves with which we may

~~not always identify ourselves.~~ ^{Indeed, we have often to} We must frequently restrain our primary desires and correct the judgement of our senses, ~~which shows that~~ ^{wholly} These sub-intellectual performances do not commit ~~the whole person~~ ^{within} our selves, but only a fractional person forming part of us, and are therefore but imperfect examples of commitment.

At the other end of the scale we find forms of intelligence in which our personal participation tends to be reduced to zero for entirely different reasons. Mathematical science

J 4

is widely accepted as the ideal of all science and science as
 the ideal of all feats of intelligence. These ^{claims} may be excessive;
^{or rather mistaken;} ^{such claims} but there is a tendency underlying them which appears ines-
 capable. There is inherent in the effort of articulation, on
 which the immense range of human intelligence rests, an unlimited
 striving to bring all process of intelligence into the form
 of articulate operations, carried out under exact logical rules.
 Its ideal, first conceived by Leibnitz in his project of a
 universal mathematical language in which all problems could be
 solved by computation, ~~as~~ reappears a century later in Laplace's
 vision of a Universal Mind deriving every past and future
 event from a set of mechanical equations. It presents itself
 once more in the philosophic programme of formal logic and even
 more recently in cybernetics, which seek to solve by the operation
 of machines an indefinitely expanding portion of all
^{This procession of efforts illustrates the fact that} conceivable problems. Intelligence cannot but strive to
 complete its own task and thus to render all further efforts
 of its own unnecessary; or at least to reduce any further need
 for intelligent activity to the performance of a strictly
^{a completely} prescribed set of operations. This ideal of ^{dispassionate}
^{formalised} intelligence would eliminate from the ^{manifestations} process of intelligence
 every trace of personal commitment.

⑤ The field of consciously directed problem solving on
 which the proposed conception of commitment is to be principally
^{then} founded, lies midway between the domain of innate instinctive
 discrimination and that of an intelligence functioning according
 to rigid rules of inference. By the solving of problems I
 mean here the whole heuristic process, which starts with recog-
 nising a problem, continues - perhaps for a long time - by
 wrestling with it and may end by solving it. It is a process
 which occurs in almost every intellectual sphere. Every form

of object-directed intelligence, such as that of the scientist, the inventor and the mathematician, and equally that of the painter and the composer have their problems. The ~~judge has~~
~~the administrator, the friend, every fellow-man has to solve interpersonal~~
~~to solve legal~~
~~problems.~~ The writer, the historian, the ~~legislator,~~
~~of human interpretation.~~ economist wrestle with problems. In a wider, but still not illegitimate sense, every person trying to decide ~~between~~
~~claims and~~
~~conflicting~~ impulses may be said to be struggling with a problem.

But I shall concentrate here on the most characteristic cases of intellectual problems and use science as my leading example. The prime virtue of a scientific discoverer, without which he cannot qualify as a discoverer, is his originality, ~~as defined by~~ ^{successfully} It lies in his capacity to embark on a line of enquiry which less original minds, faced with the same opportunities, would not have ~~thought of~~ or not have thought profitable. Originality entails a distinctively personal initiative; it is invariably impassioned, sometimes to the point of obsessiveness. ^{Indeed,} From beginning to end the process of discovery is guided by an intensely personal vision and sustained by a strong personal conviction.

The ideal of originality differs ~~strikingly~~ ^{obviously} from the ideal of dispassionate intelligence; ~~but~~ though filled with personal passion it profoundly differs also ~~from the~~ ^{and} ^{primarily} process of drive satisfaction. For our appetites seek ~~only~~ to satisfy ourselves whose appetites they are; while the discoverer seeks a solution to a problem which will satisfy anyone who is preoccupied with that problem. Only if he is convinced that his discovery has that universally satisfying character will his own agitation be appeased, and in this sense his craving is impersonal.

Since the ~~His satisfaction implies that his conclusions must be~~
~~[the scientist's search is always for a solution]~~
~~acceptable to all. His search had been for something~~ that will

be binding both on him and everybody else. Its successful termination represents an act in which personal submission and universal legislation are indissolubly combined.

a. The pre-existence of the solution which the discoverer seeks ^{to attain} does not impair the measure of his creativity. Columbus did not make America, but he made the discovery of America. The same is true for inventions; however ingenious they may be they can only reveal a pre-existing possibility. The progress of mathematics has relied at all times on daring conceptual innovations. Yet the mathematicians who put forward these innovations claim universal acceptance for them. In making this claim the innovator shows that in his enquiries he had aimed at the satisfaction of pre-existing standards of intellectual merit and that he regards the product of his creation ~~but~~ as the disclosure of a pre-existing possibility for the satisfaction of these standards. ^P~~Even in science~~ ^[It is true that - even in science -] radical innovations may have to rely for acceptance on yet undeveloped sensibilities. The purely mathematical framework of modern physics is not satisfying from the point of view of previous generations who sought for explanations in terms of mechanical models. In order to prevail, modern physicists had to educate their public to use new standards of intellectual appreciation. Yet from the start the pioneers of modern physics presumed that the new sensibility was latent in their fellow scientists and would be developed by them in response to the possibilities of the more profound and truer outlook which appealed to this new sensibility. They undertook to revise the current standards of scientific merit in the light of more fundamental intellectual standards which they presumed to be universally compelling.

This process is prominent if the field of artisitic

innovation. Modern schools of painting, music, fiction, poetry, which were shocking and confusing at their first appearance, have in the course of a generation educated a wide public in new ways of seeing, of listening or reading, to which their works offered satisfaction. And again, this normative intention was inherent in the ~~very~~^{original} act of creating these works.

Our appreciation of creative originality offers a vantage point for distinguishing between the personal aspect of a commitment and the manifestations of subjectivity. A commitment is a personal choice seeking and eventually accepting something believed to be impersonally given, while the subjective is altogether in the nature of an experience: it just happens to us. A person may have most peculiar predilections and be upset by things which leave everybody else unaffected. Yet he will not be credited with originality. His distinctive sensibilities will be described ~~as~~^{rightly} ~~more~~^{more} idiosyncrasies. Even if he is altogether wrapped up in his private world his condition will not be recognised as a commitment. He may rather be said to be subject to obsessions and illusions, and possibly regarded as insane.

It is of course possible to mistake creative originality for sheer madness, which has happened to modern painters and writers. And the reverse is also fairly common, namely for people labouring under delusions to believe themselves to be great inventors, discoverers, prophets, etc. But I am not concerned here with the question how to distinguish between originality and subjectivity in practice;) In trying to shape the conception of commitment I have to make ~~use of~~^{use of} many terms which enter into the context of this conception, without enquiring into the definition of these terms; it is sufficient for my purpose that, I can recognise the difference between the two, as I believe myself able to do.

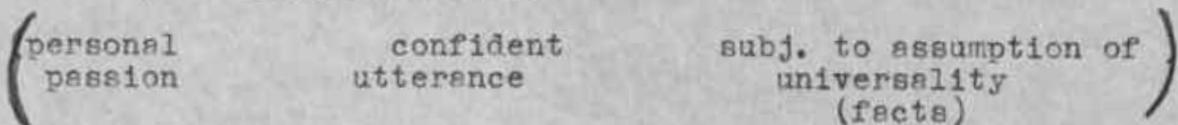
Commitment does not imply competence, nor vice versa.
 See p. 9 of 10th lecture

6. I shall conclude this preliminary outline of commitment by calling attention to the manner in which the personal and the universal are mutually correlated (within the commitment situation.) ^{see from outside} Suppose I perceive a ~~new~~ new problem in science, or in engineering, or in mathematics and that, having struggled with the problem I claim to have found a solution for it. These intellectual efforts are ~~my own~~, the passions which sustain them are mine, there is no doubt that my conclusions are shaped by me. Yet for all these personal actions I claim impersonal status, because through them I am arriving at the fulfilment of an obligation which I accept as impersonal. I had aimed at a solution which the problem has in itself and which therefore is valid for everyone.

I may have been quite mistaken. The problem may not exist or the solution may be inadequate. But as I believe in the necessity and justification of intellectual commitments I should regard this as incidental and not impairing the conception of universality. But my personal participation in the act of commitment does show, ^{But it does suggest} that the universal cannot be approached except ~~in~~ the commitment situation. Its universal standing is logically correlative to the submission of my ~~whole~~ person to it. It forms part of the terms in which I conceive my responsibility in pursuing the process of discovery and in ascertaining my conclusions. I can speak of facts, knowledge, proof, etc. within my commitment situation for it is constituted by my search for facts, knowledge, proof, etc. as binding on me. These are proper designations for commitment targets so long as I am committed to them, but they cannot be referred to non-committally. A host of confusion follows from ^{a. I shall illustrate} any attempt to envisage universals non-committally.

I sum up: Its relation to the universal elevates my contribution to a commitment from the subjective into the personal sphere; while the universal can be said to exist only in terms of my commitment to it.

At the close of Lecture 4 dealing with the Fiduciary Mode I have condemned as misleading the age old habit, codified by philosophers since Aristotle, to call sentences true or false. I suggested that much confusion could be avoided by speaking only of 'my beliefs' instead. From this arose the question as to whether any claims to objectivity could be expressed in such form at all. In the concept of commitment, outlined today, I have tried to find a positive answer to this question by showing that it implies a supposition of universal validity. Commitment has a structure which may be denoted as follows:



This is commitment as seen from within the commitment situation.

I have said that the universally valid facts to the assumption of which any commitment is subject cannot be referred to outside the commitment situation. Commitment represents the proper dimension within which the universal can be approached. Just as praying to God is the proper approach to God, so believing in our affirmations entails their universality. You cannot speak without self-contradiction of a universal ^{KNOWLEDGE} in which you do not believe. You cannot speak of knowledge you do not believe, of truth you do not believe or of facts which you do not believe; not so long as you use the words knowledge, truth and facts confidently, as universals.

Now it seems to me that the purpose of a critical theory of knowledge has been precisely to speak of these matters in a detached, impersonal, non-committal manner. The self-contradiction entailed therein will show up in a variety of different ways. Three of these have already been mentioned or hinted at in these Lectures, namely 1) scepticism which arrives at unbelievable conclusions 2) regulative principles, which are applied ambiguously 3) the attribution of trueness or falsity to sentences and the attempt

to define these properties objectively. To these I shall add

4) the identification of knowledge with a correspondence between belief and fact, as stated particularly by Bertrand Russell.

All these can be represented within a single schema if we add to the denotation of a commitment as seen from within a critical reference to it made from outside. We have then a second line

objective, i.e. non-committal reference to same	subjective beliefs	declaratory sentence	clues or 'facts'
-------------------------------------------------------	-----------------------	-------------------------	---------------------

These may be called the fragments of a commitment which no longer hang together.

1) Since the act of my personal judgement has been withdrawn, these elements no longer require each other. The subjective belief is not justified by the clues or alleged 'facts' and hence I may draw the conclusions of scepticism: namely that the declaratory sentence merely says something about myself and reflects my mental habits, but is not justified by universal standards. If this criticism is applied to an allegation in which I continue to believe in spite of my speculative disbelief, there results the fruitless oscillation between an objectivism which lacks conviction and a conviction which is ashamed of its lack of objectivity.

2) We may try to avoid this by prevarication. This is the technique of regulative principles. They accept the destructive analysis of scepticism but try to avoid the consequences by pretending not to believe their own statements, though continuing to believe them. Allegations are said to be made only as if one believed them, but no actual distinction is apparent between this and ~~the~~ confident allegations, which are of course also made as if one believed them. The regulative principle is a fictitious understatement of our actual beliefs for the sole purpose of avoiding to offer a target to scepticism.

3) The veridical quality of a sentence may be defined in following Tarski according to the rule 'snow is white' is true if

snow is white. This is an attempt to relate objectively a sentence with the corresponding confident utterance and to describe the coincidence of the two as the trueness of the sentence. However, the confident utterance is meaningless except within the context of the commitment.

(I believe, snow is white, as a fact)

So the definition of trueness would read:

'Snow is white' is true if and only if

(I believe, snow is white, as a fact)

in effect it would give us an alternative denotation for commitment in "snow is white" is true".

This is a misleading denotation because it conceals the personal character of commitment and it leads to an infinite regress because it is itself a declaratory sentence which requires characterisation as true or false, on the same grounds as the sentence 'snow is white' required it. Moreover, this definition robs the word 'true' of its proper function which is to refer to a commitment target within a commitment situation. "I believe snow is white, for it is true" and consequently I say 'snow is white' - rather than "snow is white" is true if I believe it."

4) The correspondence theory of knowledge identifies it as a coincidence between subjective belief and true facts. Since belief is here merely subjective it does not imply a belief ~~in fact, it is held by the speaker on regard to the facts in question. It is defined as implying no belief in the facts referred to.~~ Therefore, as Russell himself points out, ^{says Russell,} the facts ~~in his definition of knowledge are there whether we believe them or not.~~ But while this is correct in respect to ^a belief when regarded objectively ~~from~~ outside the commitment situation, it contradicts its own confident reference to facts, which points at something believed by the speaker to be the facts. ^{Thus the} correspondence theory identifies knowledge as a coincidence between a belief which is merely ~~objective~~ ^{same} observed, i.e. not held by us and a belief actually held at the moment.

But it is nonsense to say that we both hold and not hold the same belief at the same time.

This is the recurrent fallacy in all forms of objectivist analysis of knowledge. They always reveal in one form or another this contradiction, which can be eliminated only by regarding universals essentially as things believed in and never referring to them non-committally with a view to an objective analysis of their constitution.