A CONCEPT OF CREATIVITY

A thesis submitted to the University of Surrey for the degree of
Master of Philosophy in the Department of Philosophy,
by
Shaun Kevin Dooley

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SUMMARY

My chief contention is that the evaluative aspect of the concept of creativity has been underplayed. If we bear this in mind, we shall have to look more closely at certain facets of concepts which are inter-related to that of creativity.

This is so because first, though we may speak of a creative artifact or idea, we can only do so by seeing either as an exemplification of intentional activity. Secondly, whenever someone is thought to be creative, what he has done is seen in some way as original, and thirdly as good. All these ideas are implicit in every example of the usage of 'creative', but precisely what we are committed to when we employ the concept, is rarely made explicit.

To make these points explicit, it is necessary to clarify the concepts of thinking and intelligence since intentional behaviour will only be understood by presupposing these to some degree. Moreover, if one is to act with originality, then this will demand seeing connections unseen by others; and for this to be possible, a concept of intelligence is necessary. Here, we ought to be aware that any means or ends adopted are dependent upon how an evaluator sees them. He must consider them as good in some way.

So, when we claim that someone is creative, we mean that because he has acted with originality, he is necessarily considered intelligent, and also that what he has done is considered valuable. That particular sense of value will be shown to be one which enriches understanding; this is the reason for the evaluation.
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INTRODUCTION

Many things have been said about the concept of creativity. In fact, when Rhodes\(^1\) began his investigations, he found no fewer than forty definitions of creativity. However, once he had examined these definitions he discovered that they could all be fitted into a system of four strands. These strands were identified as pertaining to the person, process, 'press' and products. By 'press' Rhodes means the kind of relationship which is thought to exist between people and their environment.

Now, this method is very useful in obtaining some synthesis of various views, and is suggestive of ideas for research. For example, we could begin to investigate whether there was a connection between I.Q. scores and creativity, as Rhodes suggests.

Yet, for most pieces of research like this we already need some concept of creativity in order to proceed. Presumably, then, some implicit concept exists which can gradually be made explicit when certain connections with the concept are suggested. This was probably the position with a concept like Morality, where writers such as Plato, Butler and Hume had said various things which did not tally with the implicit concept.

Of course, not all concepts are like this. It is not likely that an implicit concept of Relativity existed before Einstein began his work. On the other hand, there is a strong possibility that an implicit concept of creativity has existed, since there is considerable agreement about some people being placed under this category. In fact, in Ghiselin's\(^2\)

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collection of autobiographical sketches, the names of accepted creative
people would probably be mostly the same as in other lists.

It was with this possibility of an existing implicit concept that I
began, in the hope of searching out central points about the concept.

What, for example, could be noticed was that whenever a concept of
creativity had been employed the following major ideas were discernible.
First, some idea of originality was presupposed. Secondly, the concept
always had reference to an idea of evaluation.

Specifically, the evaluation has always been directed at intentional
activity, and never simply at products, however magnificent these have
been. Because of this point, one vital concept to consider is that of
thinking, since how is intentional activity to be otherwise understood?
Moreover, if we are to account for a person's acting with originality,
then we presuppose that he sees connections between ideas, and sees them
more quickly than other people. In considering these points, it will
be understood that the real search for a clarification of the concept of
creativity will not necessarily lie in what has been said of the subject
of creativity.

To argue for the coherence of my view I shall attend first to some
leading ideas centred on the subject in order to point to an elucidation
of the concept. Thus, in the consideration of the concept of creativity,
I shall be directing attention very much towards the concepts of thinking
and intelligence. Clearly, if the stress is placed upon what has
frequently been called 'creativity' it would be difficult to clarify the
concept. For example, by picking out particular points about the
relationship between 'creativity' and 'intelligence' as pursued by some
writers, would be beside the point simply because the 'intelligence'
usually spoken of is an I.Q.-oriented concept. Such a way of looking
at it is, as I shall show, mistaken. To make the whole idea of my
view quite definite, the area of investigation is the concept and not
necessarily the subject of creativity.

What I shall attempt to argue in this thesis is that the concept
of creativity functions as an evaluation of intelligent, original activity.
CHAPTER 1
A consideration of ideas associated with the concept of Creativity

Introduction

To claim that to be creative is necessarily also to be intelligent may not seem too outlandish, although of course if one glances through Ghiselin's collection of autobiographical sketches,1 it may certainly seem so. However, some of the works on Creativity in the past few decades have, at least by implication, been moving in the direction of linking the concepts of creativity and intelligence, especially Guilford's works. Yet, what is usually lacking is a clear arguing of the interconnection of these concepts.

Further, to claim that the concept of creativity necessarily functions as an evaluation sounds quite reasonable, although in which way it is evaluative remains vague even in a writer whose main concern is to argue about it as an evaluation.2

These two claims will be shown to be fundamental when we look at what is presupposed in the concept, yet it appears to be very difficult to reconcile both claims in the light of recent usage when, for example, it is said that children are creative and engage frequently in creative activity. The question then is whether more recent usage is stretched or whether although intelligence and evaluation are necessary to the concept, something more is also required.

which is more important, or finally whether the concept is polymorphous and, say like farming, can be applied very widely.

However, what can be noticed is that whether we are talking of children or of great inventors there always appears to be presupposed some concept of originality, however vague that is: and it may be with this in mind that other criteria are underplayed. This, for example, has happened with other concepts, notably with the concept of punishment where, for example, in some usages, the infliction of pain has been the only concern. It is likely that some idea of originality, however necessary, has received a great deal of attention since the upsurge of interest in Creativity, instigated by Guilford, and certainly this is evidenced in the pressing of the idea of divergency.

Now, if we bear in mind recent usage in connection with children, and look at what must be meant in talking of a creative salesman, footballer or engineer, or at the third area of usage where certain people like Shakespeare, Poincaré and Mozart are spoken of as creative, in every instance they have been thought of as offering something original. Where a doubt exists about the ascribing of originality, a doubt also exists about the awarding of 'creative'. Secondly, in all examples of usage, the users mean to give praise, unless sarcasm is intended but then this is parasitic upon the primary meaning. What the children do is seen as good; what the footballer does is what is worth observing; what Shakespeare has done is praiseworthy. Thirdly, in so far as anyone in any sphere acts originally in a way that is worthy of praise he must be bright, quick, intelligent, since no one else has acted precisely in this way before.
While these ideas will have to be worked out in detail, conceptually they have a ring of truth, yet in so much of the discussion, writers have not really arrived at this point. The reason why this is so is that writers have not so much turned their attention to what is necessary to the concept and to what is sufficient, but to various associated ideas centred on the concept. They have, for example, assumed some kind of meaning which has not been examined, and investigated how it arose or which kinds of empirical conditions were helpful in promoting it or whether some outstanding product was associated with it.

While it may be wondered how such ideas can be generated without a clear meaning given to the concept, they can in fact be helpful in enabling us to become clearer about the concept, which I shall show presently.

Lack of precision about a concept and yet pursuing ideas generally connected with it is not new for it has many parallels. For example, in Morality there are certain concepts like courage and kindness which may or may not be crucial to Morality. Now, instead of examining a concept of intention without which Morality has no meaning, we can light upon courage or kindness and wonder whether either is innate or developed in one's early years or correlates with a certain level of I.Q. This wondering and this investigation, however well done, is not sufficiently crucial to the analysis of the concept but it may give some clues. Just as likely to come up for investigation is intention and when empirically tested stands up very well, and so much so that an opportunity is afforded to see whether we could even conceive of a moral act without imputing intention to the actor.
This and similar forms of assistance can be offered by investigators of ideas associated with the concept of Creativity. There seem to be seven leading associative ideas which may be gathered from the literature on Creativity. They may not exhaust the supply but they are certainly sufficient for the purposes of directing attention to the crucial points about the concept of creativity.

I would like to look at six of these associative ideas in this chapter.

**Being creative and being gifted**

The first idea is that creativity is a gift. Actually in employing the concept there must be some implicit meaning attributed to it but this tends to be overlooked and therefore never made explicit.

At the lowest level no conceptual investigation is offered at all, and this can be illustrated in the notion of a poet being born, not made. Even in De Bono's comparatively advanced work in which he offers an account of lateral thinking, he sidesteps a direct analysis of creativity by saying that like humour and insight it is something to be prayed for.¹

At this level there is a note of passivity, and while this only looks to be covering an assumed origin of creativity, it colours the functioning of the concept to the extent that investigation appears superfluous. Thus, in answer to the question of what creativity is, the only reply is a gift.

What we have then is a theory of explanation which operates either mystically which links with other beliefs about our lot in life, or in terms of a model as in that of the four basic humours which gives an account of why we are what we are.

The implication of any such theory of explanation is that there is nothing that can be done. All is given and there's the end of it. 'Innate mental capacity' as an account of intelligence is in the same category.

At a higher level, some investigations into the implications of creativity have been made where the notion of a gift has been offered both as an aspect of Creativity and as a final explanation when other implications of being creative appear to be present and yet nothing ensues. For example, Wallas has suggested that creative people have gone through four stages, namely those of preparation, incubation, illumination and verification. These I take to be implications of being creative since he has already accepted what creativity means implicitly and has tried to show that if anyone is creative, then, for example, he must have been prepared in the field of operation. 'Illumination' functions in the stages as a gift where, however much we may deliberately put aside our efforts at thinking, we are dependent upon something happening within us, where indeed we are passive.

A very difficult point, of course, is that Wallas is committed to two views which cannot be reconciled. First, while thought is a natural process,¹ Wallas is insistent that what is necessary for an

art of thought is that a thinker should make a conscious and voluntary effort to control the processes, whereas secondly, for creative thought we are dependent upon illumination which by his own examples cannot be controlled.

In pointing to the idea of being gifted we do not really enlighten understanding of the concept of creativity because we do not separate out what is necessary to that concept as opposed to any other mentalistic concept. We could say that to think, to act intelligently, to remember are all matters of being gifted.

Of course, at the root of any mentalistic concept is that it is employed of people, and because of this, something is given in the sense of having potentialities. This emphasises that they are not, for example, stones or trees. Again, this is why the views of Chomsky and McNeill concerning a potentiality for language acquisition are acceptable. Thus, some idea of potentiality in terms of a given is presupposed in any mentalistic concept.

If this can be seen as an implicit contribution of Wallas, it is helpful. Negatively, though, in so far as any one presses for a gifted idea to account for creativity he affords us an opportunity of showing how such a view cannot be accepted. In the three areas of the usage of creativity, we make a distinction between what people do well and do badly. With a child in class if it is said that he is creative, at least we can observe that for example he uses material

and seems to take things into account: and the same is true of the 
creative footballer or Shakespeare.

Certainly then all have done well, but I do not know that any of 
these in fact had more gifts than others. If I say that they must 
have had, I am only basing this upon an assumption. At one point we 
may talk of a gifted pianist but if he stops practising and develops 
a dislike for playing, do we attribute his deterioration to other 
gifts? Rather, when we are pressed, we talk of making use of one's 
gifts: and, moreover, we do not even know of these gifts until 
someone has made some effort.

This presupposes a concept of freedom. Certainly, then, if 
'gifted' is used to cover up the possibility of freedom, it has to be 
applied throughout the field of human activity which makes nonsense 
of any form of praising or condemning. Clearly there would be no 
place for morality and none for creativity as evaluative of human 
effort.

Since moreover the epithets employed in morality carry with them 
an evaluation of human effort, this presupposes freedom. Now in 
the moral sphere we also accept certain pre-conditions just as we do 
in considering any mentalistic term, but essentially we are singling 
out the idea that in praising a person for doing one thing, there is 
a possibility that he need not do it. If in morality, why not in 
creativity? The individual has done one thing but equally he need 
not have done.
The plain idea of gift as an idea of utter passivity is therefore unacceptable in picking out what is necessary to the concept of creativity as distinct from other concepts. What is possible, however, is that 'gifted' in one meaning unites the ideas of the given and the effort. For example, Getzels and Jackson write that for so long the notion of 'gifted' has been synonymous with high I.Q., and according to them, this is an incorrect notion. They see 'gifted' as a laudatory term and wish to apply it more widely so that it can cover moral, social and other outstanding qualities. The difficulty I see, though, is that the stress is on passivity, simply by employing a term which conjures up gifts.

A consideration of products

The second idea is associated with a product. Although clearly when people use the term 'creative', a notion of a product is generally conjured up, what is essential is to see whether 'product' anyhow is unambiguous and then to see whether in any meaning it is necessary to the concept of creativity.

From the start, it is interesting to note that the O.E.D. distinguishes between a product and a production, stating that product is a thing produced by natural process or manufacture, in its first meaning; and it is not until production is mentioned that there is any reference to human activity.

If then 'production' is used of a musical composition or an artistic or literary work, and 'product' is used of a car, insofar as

all are primarily dependent upon human activity, the difference which is pointed to is one of final manifestation. So, 'production' used of painting or of literary work would refer to the painting actually done by the artist or to the actual manuscript of the author. 'Product' in each case would then refer to a final manifestation as a result of reproducing the originals.

Thus 'product' itself is ambiguous since it could refer to what was originally offered by human activity or it could refer to what has come about through the various forces in Nature, like stalagmites or cloud formations. While, further it can refer to what was originally offered by humans, in their final state there is a separateness about products which tends to make us think of them as in the same category as things, brought about in any way.

Now, when the concept of creativity is invoked, it always has reference to what is brought about by 'intelligent' beings. What may be noticed, however, is that we sometimes refer to a creative painting or to a creative poem, as if 'creative' were actually being used as giving some account of things. This is not so, for we do not use 'creative' of trees or rock formation or coal fields. It is only used where what has been produced is considered as produced by 'intelligent' beings. For this reason, when applied to poems or paintings, it is so applied as a transferred epithet, just as we use 'thoughtful' of a poem or other artifact.

The ambiguity within the idea of a product has to be guarded against since there is a tendency to lose sight of all that makes any so-called product possible.
Actually, a gradual losing sight of the person can be seen in Brogden and Sprecher who, in attempting to establish criteria of creativity, press a great deal for what they call scientific creativity. At one point they say, "Almost all workers agree that one important characteristic of the creative scientist is the originality of his product; most would add that the value of the product, variously conceived, is also important".¹

In looking at this statement, an analogy with morality and intelligence will help to pinpoint an essential of the concept of creativity. When we assess people we have to look at what they do. It is not possible to say that someone is moral unless he generally performs moral acts or is intelligent unless he performs intelligent acts: but these acts are not seen in isolation from the performers, since once they are looked at in isolation they are no longer moral or intelligent. The point can be illustrated in this way. Suppose the moral act is the giving of water to a thirsty man. Now, such a thirsty man may simply light upon a spring from which he gains refreshment. Quenching thirst is the result or the product; but while this cannot be divorced from the moral act, by itself is nothing moral. Again, suppose the intelligent act is to pass a ball to a player who has an excellent chance of scoring from the position he has taken up; yet what could happen is that, because of a mistake on the part of an opposing player, the ball could glide into the path of the potential scorer. The result would be identical but such a

result or product would be no part of an intelligent act.

The product in either case is pleasant and useful but unless seen as necessarily linked with a certain kind of intention, cannot be moral or intelligent. It remains merely pleasant and useful. In the same way, unless the product is necessarily linked to the person, it cannot be considered minimally as creative, however useful and pleasant it may be.

It is precisely because of a lack of clarity about the kind of evaluation that the concept of creativity implies that these same writers can shortly afterwards go on to claim that, "Process measures are one step further removed from the ultimate criterion of creativity, which is, presumably, bound up with products". ¹

Nor are these writers alone in perpetuating an error. Worried by the elusive nature of creativity, Ghiselin holds that to overcome the indeterminateness of the concept, we must establish ultimate criteria on rational grounds, and the first requirement is an acceptable definition of creativity.² This, though, is how he suggests it should be obtained: "through analysis of creative products in their intrinsic nature".³ Such a view immediately disturbs him because any definition offered in these terms begs the question since as yet no criterion has been offered for judging what is creative among products.

He then continues by offering the suggestion that "what really is required is an examination of products, in an effort to discover some

3. ibid., p. 31.
grounds on which we can assign or deny to them the epithet 'creative' in a fully intelligible and defensible way.\(^1\) Immediately, though, as if coming to grips with the evaluative aspect of the concept of creativity, he narrows products to "things physical or spiritual that have been brought into being by human agency".\(^2\)

It is possibly because of the ambiguity with product that Ghiselin at one point separates it from its maker and at another sees them as necessarily one. There is a further point which can be mentioned here, one which highlights Ghiselin's difficulty. If we are offered a writing to evaluate, it is presupposed that it is the work of humans: but the same is true of paintings. Now, if we are impressed by the originality, we may say that the writing and the painting are creative, meaning that we impute to the maker some original activity. Yet, if then we are told that a monkey did the painting, do we still say it is creative?

To answer this immediately, we should withdraw the award just as we should with moral simply because what was presupposed to the award has now been shown to be inapplicable. If then the questioner claims that this painting is as good as the others done by humans, and if these are creative, why isn't the other, we may not deny his point (although if this genuinely happens, it may give us concern about Art). The reason is that we are not making an award for a product, any more than we are in morality. There again, to overcome anxiety about Art, there is always a possibility that the 'right' thing could be done

\(^1\) Ghiselin, B., op. cit. p. 31.
\(^2\) Ghiselin, B., op. cit. p. 31.
accidentally, and this applies logically to any field.

What this example shows is that the offering of something original is implicitly accepted as a criterion of the concept of creativity, but what it means to act originally is not worked through sufficiently. Externalisation, generally thought of as a product, seems necessary for us to say that someone was creative or indeed for us to learn how the concept functions. In other words, it gives us evidence for saying that someone is creative.

**Attitudes and the concept of Creativity**

A third idea suggests that creativity is a matter of having a special kind of attitude. This suggestion is one that comes from Erich Fromm. When he asks what creativity is, he says: "The best answer I can give is that creativity is the ability to see (or to be aware) and to respond."¹ This seeing is obviously not superficial because he claims that sometimes a person who says that he sees a rose, may be emphasising the act of cognition and verbalisation rather than the seeing. Now this seeing depends upon five conditions, which are worth looking at if only to become clearer about this seeing. The conditions are: 1) capacity to be puzzled, 2) ability to concentrate - to live in the here and now, 3) acknowledgement of a real sense of 'I', 4) ability to accept conflict and tension resulting from polarity, rather than to avoid them, 5) willingness to be born every day.²

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2. ibid.
An immediate response would be to wonder whether these conditions are fairly vague ways of saying that one should act intelligently. If they are, then instead of being conditions of seeing, they would be what constituted the act of seeing. Yet, even if one sees in this way, wondering, concentrating, pushing oneself to face conflict and looking freshly at things, does it mean that one is creative? The whole point of seeing and its connection with responding is that something is there. Now if we see anew and respond anew there is a possibility that we could be creative, but there is nothing in this 'seeing' in itself which would enable anyone to say of such a see-er that he is creative. Even if it could be shown that all those ever called creative saw in Fromm's way, this would prove little, since it is possible that hosts of others who also saw in that way were not called creative.

Because, anyhow, the concept of creativity is a mentalistic concept, then having some kind of attitude will be part of what 'to be creative' means; but what kind of attitude needs to be investigated, and whether such an attitude is sufficient also needs investigation.

**Is the concept of Creativity to be seen as a process?**

A fourth idea is to see creativity as a process. There is of course a sense in which process can be used which simply points to what is going on or is being carried on, where all is observable. Thus, for example, we could observe various processes in the making of a car or the various processes leading to a piece of sculpture.

This, though, is not the sense in which process is used when we
speak of the concept of creativity. It is at least clear in this area that what is being singled out is not some partly or wholly finished work but what goes to make someone creative. In fact, conceptually this kind of approach has much to recommend it, mainly because in picking out that someone is creative, I already need a concept of creativity before I can tell whether a certain person's offering is evidence enough for me to say that he is creative. An example will help to press the point. I can have a concept of strength without any reference to the particular evidence of strength. When, though, I am asked how I know that a particular person is strong, I point out his various abilities in lifting heavy weights. Now if then it is shown to me that, in fact, the man was engaged in trickery, I no longer wish to claim that he is strong, but nonetheless my concept of strength remains untouched. Evidence for strength is something other than the concept of strength.

What constitutes being creative is then crucial. However, processes mentioned have tended to be very vague. Two methods of looking at any such processes have been offered. One is by asking already accepted creative people how they viewed themselves prior to and in the act of being creative. This is the method employed by Ghiselin in his collection of autobiographical sketches, but the difficulty with this is twofold. First, any particular processes may not be crucial, and, even if crucial may still be insufficient since it is quite possible that the processes listed may also be identical in others not thought of as creative. A parallel, drawn from morality would be this. If we collect together a number of people generally acknowledged to be moral, and then look at what they have said about

themselves in reaching their moral stature, most of them may say that when they were young they had a great fear of breaking rules, or an inborn sympathy for other people or that they had great temptations to be selfish. What of course could happen is that if generally acknowledged immoral people were asked to account for their immorality, they would list identical points made by those who were moral. Again, as the second part of the twofold difficulty, because certain people are creative it will not follow that they are expert in telling us of their processes. While it may be said that there is unanimity in the various accounts, this is explicable in terms of those people already having some implicit concept of creativity and attempting to fit their accounts to what they vaguely accept. In fact, they may even be trying to make explicit their implicit beliefs.

The second method of looking at processes is much more important, and the exemplar here is Wallas. Now Wallas, at first sight, may look as if he is only offering a factual account of the processes involved in creativity, when for example he says that all these creative people have gone through a stage of preparation. Yet, there is arguing for the positions which he adopts. For example, he opens out the process of preparation into 'an elaborate art of education' under which come Logic and Mathematics and the observational sciences. In fact, the kind of question which he faces is whether it is possible to engage in some kind of original activity, say in Science or Literature, without to some extent being prepared.

It is this point which is missed by John White when he says:

"Creative' is a medal which we pin on public products, not the name of private processes.'

Of course, it is true that we do not know which processes Shakespeare underwent, and certainly White is factually correct here, but the kind of move which is being made by Wallas is suggestive of what is essential to someone's being creative. This is not an empirical question.

So the argument which is at the base of investigating processes under this method is one which claims that while products are necessary for us to be able to award 'creative' to someone, the possibility of the award rests upon our having some concept of creativity. The product, then, is merely evidence for our awarding 'creative'. So the question is concerned with whether the concept of creativity necessarily includes the idea of certain kinds of processes.

This point is strong because although I do not know specifically about the processes which people employed for coming to an understanding of basic Mathematics, what I do know about any such understanding is that it is logically bound.

Thus, the concept of creativity, because it is evaluative of what people have done may indicate that creative people have indeed thought differently from others. They could not, for example, have thought illogically, for then what they offered would not have been comprehensible to others who say that they are creative.

The only attack is that there is a lack of precision about any process, and there are two possibilities why this is so. First, because we have not really attempted an analysis of the concept of creativity, we have not seen what is presupposed to the concept. Secondly, because the concept of creativity is evaluative, we cannot be precise about actual processes or their sufficiency. However, what we may be able to say is that we cannot conceive of creativity unless we presuppose thinking or thinking intelligently.

A consideration of Problem-solving as a criterion of the concept of Creativity

A fifth area is that of seeing Creativity as problem-solving. There are two reasons for suggesting that this is a possibility in getting to the concept.

First, since a problem involves either a question or difficulty that is set or is in need of solution, then the moment one tries to offer a solution, some human activity is presupposed, which then is possible to be praised.

Secondly, because of a general agreement about those actually thought of as creative, and the possibility that these have been engaged in some form of problem-solving, a clear link may be made with the concept of creativity. Archimedes is someone referred to who may be taken as an exemplar in this area. He certainly had a problem, and he could see clearly how his problem could be solved by using the idea of water displacement. Now to make explicit the idea of water displacement was new; and, of course the bringing about of something new
certainly looks to be presupposed to a concept of creativity. Problem-solving is narrower than the bringing about of something new since the problem may have been encountered many times and solved; but at least, there is an aspect of newness for the individual who solves a problem.

Seeing the concept of creativity as a matter of problem-solving has its difficulties. Three difficulties can be expressed in order to attempt to judge of the validity of the connection.

In the first instance, the word 'problem' is used extremely widely. For example, I can agree that Archimedes was creative and had a problem to solve, whereas Shakespeare was creative but did not seem to have any problem to solve. Here, though, is where 'problem' covers a wide ground, since some people may hold that Shakespeare must have had a problem, for otherwise he would not have written. It is this very width of the notion of 'problem' which, if linked necessarily to the concept of creativity, will embrace every human activity which in turn will render the concept so general that the evaluative aspect becomes effete.

Further exemplification of this point may be seen if we turn to Guilford who, in offering the idea of problem-solving, presses for its similarity to creativity. Moreover, he offers an account of the ideas of three progenitors of the problem-solving method, who are Dewey, Wallas and Rossman. Between them they cover the wide and the narrow.

Dewey, for example, thinks in terms of an explicit formulation of an encountered difficulty. On the other hand, the steps of Wallas - preparation, incubation, illumination and verification - may be an overall idea in saying what happened when a problem was solved, but there is no mention of a problem at the beginning of the steps.

Wallas, then, rests on hope in contrast to Dewey's precision. Finally, Rossman, in his seven steps, begins with the observation of a need or difficulty. Indeed what precisely is a problem is a problem itself.

Secondly, if the idea of a problem is sufficiently circumscribed so that the vagueness is taken away, so that a genuine difficulty is acknowledged which is not simply trivial, we can then see whether this can be connected to a concept of creativity. Here, though, what we can see is that solving problems may be simply like the answering of questions where the difficult thing to do is to ask the right kinds of questions.

If the generally accepted problems are solved, those solutions may be quite ordinary. What is possible is that inventors are not merely those who solve problems but who also suggest problems in such a way that solving them may be comparatively easy. It would certainly be useful to investigate this idea with reference to people like Marconi, and indeed Hume whose problems roused not only Kant from his slumbers but very many other people too.

Thirdly, there is a point, illustrated by Guilford which shows the kind of error we can fall into if we try to link problem-solving to the concept of creativity before we have fully analysed the relationship between problem-solving and novelty. This is the error.
Guilford claims that genuine problem-solving involves some degree of novelty, and since novelty is the sine qua non of creative production, problem-solving involves creativity. This move involves Guilford in having an undistributed middle term in his argument. All kinds of activities may involve novelty, and while it may still be held that novelty is necessary to creativity, this may be by no means sufficient. What in fact may be more to the point is that although problem-solving involves some novelty, problem suggestion involves a greater depth of novelty. However, what the idea points to is originality.

Originality as a criterion

This then is the sixth idea. It is probably no accident that repeatedly in the literature on Creativity the idea of originality is mentioned as important. At this point it looks as if the beginnings of an analysis of the concept are being made but it is precisely because the evaluative aspect of the concept has been underplayed that the analysis has stopped short, and originality has become something of a necessary and sufficient criterion of the concept of creativity. It has taken on this appearance because, unclear about any evaluation, we have given an implicit value to being original, over and above what it can bear.

Certainly, though, it bears some value. Normally, in saying that someone is original, we mean that no one else has offered something in this way before. This is what we are saying of people like Plato and Shakespeare and Picasso. Actually, to be able to do this, we require

a great deal of understanding and experience, since with limited
experience we may think that, for example, no one else has written in
a particularised way before, but we may be wrong. It is for this reason
that we may light upon someone's painting or writing, think highly of
it only to find later that it has all been done before. Therefore,
there is this value in the idea of original, for we say of what we
formerly thought was original, that it was only copied.

Concerning this, we may be unable to detect the difference
between an original piece of work, say in a painting, and a copy, and
because of our inability, rely on experts, but in so far as we are
informed about the difference, whether correctly or not, to that extent
we think more highly of the original. It is quite possible that a
copy is, as a product, every bit as good as the original, but in
declaring praise for an originator we are singling him out.

Although the primary sense of original carries with it the idea
that this has never before been in existence, it is possible to use
original in a restricted sense when we say, for example, that someone
has done something new for himself, though not new in the world. He
may have solved a problem which, though many other people may have
solved before him, he has not himself solved before. He may offer an
idea which he has thought of by himself, and therefore is original for
him. This appears to be the sense in which it is employed in looking
at children's work. The stress here is on 'origo' which is a source,
and it emphasises non-copying. Actually this may look a little
stretched in meaning but it may be accounted for quite easily by
considering this example. If we learn of one of the most outstanding
of human achievements which we call original, and then find that quite independently another person has achieved identically, we tend to think of both as equal and thus as sources.

Somewhere between the extremes of new in the world and new for the individual, both of which carry some value, is an idea mentioned by Torrance which amounts to "statistical infrequency of a response within the given culture".¹ This too is acceptable in so far as there can be a comparative excelling.

Once we are aware of these various senses, the evaluative nature of originality is seen more clearly. Yet, notwithstanding this evaluation, a non sequitur often enters the kind of thinking conducted. This thinking suggests that because all those who have been creative have been original, then anyone who demonstrates originality is also creative.

Yet this is clearly not so. Some original ideas, even original in the world, are quite worthless. Standing on one leg holding a frying pan for an hour looks to be in this category, and with very little effort the examples could pour abundantly. It is possible that because of the emphasis of originality, recent work with young children has been misguided. Originality, obviously connected with the concept of creativity, has been used to cover the whole concept.

What is necessary is to separate the kind of evaluation which originality has from an evaluation given to those who are original.

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¹ Torrance, E.P., Education and the Creative Potential, Univ. of Minnesota Press, Minneapolis, 1963, p. 73.
An argument on the following lines will show this separation. First, simply being original may elicit praise. Here one may be original in the world, more original than other members of a group or original for oneself. In some areas of activity it will be important to emphasise originality and to encourage people to be original. In teaching, for example, an aim would be to get pupils to work things out for themselves and not simply to copy what others have done. In morality too, we would be necessarily concerned to enable people to examine principles and to work out reasons for themselves in connection with what they ought to do. That they become sources is vital. Whether what they decide on is new in the world, comparatively new or merely new for themselves will be less important than that they are sources. Yet, however much we stress the importance of originality in any of the three senses, it is always possible that any such originality is beside the point, worthless, stupid. It remains, none the less, original.

It will be admitted that those people who have been selected, who appear in any list of creative people, have offered what has been thought to be outstanding, magnificent work. If their work had been thought to be poor, whether or not original, we would not have been further concerned.

So there can be magnificent work which is not original and some forms of craft are in this category. There can be poor work which is original, and possibly the Patent Office has examples of this. Finally, there can be magnificent work which is also original - and to this, it is contended, we give high praise, in terms of its originator.
There are two positions which can be adopted in looking at originality. First, if what someone has offered is clearly original and certainly the paradigm is original in the world, then we look to see whether it is worthwhile. Secondly, if what has been offered looks to be worthwhile, we then check to see whether it is original.

Conclusion

Many ideas have been shown to be associated with the concept of creativity, but not all these ideas are central to it.

To summarise which views are central, it can be said quite simply that whenever we claim that someone is creative, we know that we are singling out that he has done something of value. Thus, we must have some concept to judge of this. This concept refers to the activities of people. Now these activities must, of course, be externalised in order that we have the evidence to employ the concept, but just as with the concept of morality, we infer some kind of intention. Some product is therefore essential for us to award 'creative' to others, but our concept, though probably learned through the externalisation of others, is not dependent upon this.

While, in employing the concept of creativity, we single out people for praise, clearly we bear in mind that unless people start with something, there is no chance of doing anything. Again, what has been admitted, and this must be admitted in any area of human evaluation, is that there is always a difficulty in separating what is given from what people have done. In practice, however, we do
separate these, and this is only possible if we presuppose some effort without which praise is meaningless. Obviously, then, we presuppose certain processes, however unclear we may be about these. They may be of a problem-solving nature, although the indications are that more is implied, especially as the concept of creativity looks to be more to do with problem-suggesting.

Finally, in praising creative people we have already looked at their offerings. If they are worthless, there is no sense of praise. If they have some value, we can say that they are magnificent: if they are also expressive of originality, we say they are expressive of creativity. Originality is therefore part of the concept of creativity.
CHAPTER 2

A concept of Divergency

Introduction

At the outset it was claimed that the concept of creativity was evaluative, and also that it necessarily embraced the concepts of originality and intelligence.

When ideas associated with the concept of creativity are examined, the one clear point which emerges is that some form of originality is necessary. Usage also supports this because the concept is never employed when we believe that pure copying is being considered, and is only ever employed when we believe that we are considering that someone has acted with originality. Thus, some concept of originality is presupposed.

What has also become clear is that there is nothing accidental about this originality. Many things may be original, but at the least, under a concept of creativity, we are attributing praise to human beings who have acted in an intentional way. Of course, difficulties remain about being precise about the originality which is praised, but these will be examined later.

Moreover, in examining various ideas associated with the concept, it has been seen that while the term 'creative' has been used evaluatively, it has not been clear in which sense the concept was evaluative. From what I have said already, the clue to praising people for their intentional, original activity lies in the concept of intelligence. This, however, will require close analysis.

Now, the last of the seven ideas associated with the concept of creativity is divergency. Because this is a shorthand way of referring to divergent thinking, then divergency has possibilities in explicating crucial points centred on the concept of creativity. This is so because if
originality is presupposed, then the kind of thinking required looks to be intelligent.

A concept of Divergency

The concept of divergency as a clue to the concept of creativity will have to be seen in the context of what Guilford says of it, since anyway, the introduction of the idea is his.\(^1\) Certainly, from what has been argued already, some of the ideas which would be necessary to creativity appear to apply also to divergency. However, in the first place what must be established is whether these ideas are precise enough and secondly whether they are sufficient to a concept of creativity; and by looking into what is claimed for divergency, some further clarity will emerge.

As a definition of divergency, Guilford says that it is the "generation of information from given information, where the emphasis is upon variety and quantity of output from the same source, likely to involve transfer".\(^2\) From other points which he makes in connection with creativity, it is clear that he is very much concerned with the ability to see problems,\(^3\) and because of this there is in his definition a stress on the information already given. Further, because

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divergency is opposed to convergency which "proceeds toward a restricted answer or solution",\(^1\) he has taken up the idea that all manner of suggestions will be fine. The point which he makes concerning transfer, seems to have reference to what on occasion he has called 'spontaneous flexibility', exemplified in the suggestions for the uses of a brick, where an examinee "jumps readily from one category of response to another".\(^2\)

This definition will have to be supplemented by Guilford's own idea that in divergent production there is a generating of logical possibilities,\(^3\) because otherwise we are given to understand that any kind of suggestion will do.

There are five points which are important to this idea of divergency. First, because divergency is a branching out from existing structures, originality is necessary to it. Secondly, it leaves open in which sense someone must be original. Thirdly, because the whole idea is related to problem-solving, it points to a way of acting intelligently. Next, it rules out the bizarre, for it generates logical possibilities. Finally, it accords with the usage of the verb 'to diverge'.

If these points are expanded we can begin to see in which ways divergency is a viable concept in the explication of the concept of creativity.

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As has been argued already, however general an idea originality may be, it is necessarily included in a concept of creativity. So, if I am to say that someone is creative I must have in mind that someone is original. To avoid a charge of merely making an assumption it is important to make explicit the precise grounds upon which originality is seen to be necessary. It could, for example, be suggested that originality was not necessary and that while many people have been both original and creative, others have simply done outstanding work which is valued highly but this work may not be original. Thus, the concept of creativity is necessarily concerned with evaluation of any outstanding, human work. This could be aesthetically pleasing but this is not necessary.

Now, it should be asked what in the first place makes any such work outstanding. If, for example, anyone had previously done all the things which Shakespeare did, would Shakespearean work still be outstanding? Certainly it stands out from most others but not from the one which is identical. Immediately we would say that we had seen this before. What then makes this outstanding and worthy of praise? It cannot be the mere work since 'creative' is only ever applied to objects by transferred epithet, when in fact, it is thought that these objects are the works of 'intelligent' beings. It must be that there is something outstanding about the individual, and indeed in so far as it is thought that the individual has operated independently of others, to this extent he is outstanding - to the extent that he is original.

To make the point more firmly, in all instances of usage, originality is necessary to the concept of creativity. What, of course,
is conceivable is that usage could change, but that applies to any concept.

Secondly, there is no stipulation within this concept of divergency that 'original' must be taken to mean that it has never been seen before. In fact, we do have to modify 'original' by adding terms like 'completely' or 'in the world'. At one point Guilford actually refers to unusualness of responses as one principle of measuring originality statistically, and so I am not stretching his point. Clearly, the more important of these senses is 'new in the world' since presumably the most difficult of problems will only ever be solved by the most divergent, but in singling out a particular pupil in a group, there is a sense in which teachers would say that he is comparatively creative. There is, though, a little difficulty concerned with the third sense of original where it refers merely to an individual. Here, the individual is not merely a source but he diverges from the paths which he has previously taken. Now, as Guilford holds and which is true, some novelty always results from solving a problem. Yet an individual will also have problems, say even in language mastery or in familiarising himself with a new building; and it looks as if he is diverging just as the others who were original diverged. His overall standard, though, may be extremely poor. The difficulty then in beginning to see him as creative is obvious for two reasons. First, what he does is utterly insignificant in comparison with heralded creative people like Einstein or Plato; and secondly, 'creative' here picks out very little for it more or less applies to everyone. However, if we are aware of

the intended meaning, these difficulties may not be insurmountable since anyhow so many concepts allow of degrees, and moreover, so many concepts - among them, thinking and remembering - apply to more or less everyone.

When considering any of the senses of 'original' what may easily be overlooked is what actually constitutes originality? There are three ideas here which should be mentioned, all of which may throw some light upon the concept of creativity. First, sometimes people do things which for them are matters merely of interpreting the world or managing their everyday affairs, yet when looked at by others are considered to be original. Here, people can be original and not realise that they are being so. Shakespeare, for example, simply wrote plays to be acted. If then it is claimed that the concept of creativity is essentially evaluative of people's efforts and these people do not always realise that they are original, on what is the evaluation resting? Secondly, someone may do something quite accidentally, like dropping a clay model the result of which another person may value highly and consider to be original. Is there a sense here where the concept of creativity has application? Thirdly, we may, as a result of doing something accidentally or of having a dream, realise the significance of what has happened. This presumably is what is meant when it is said that to be creative one must have a prepared mind. In this sense, identical sights may appear before different people but only those prepared can interpret or even recognise what is there.

All these ideas about originality indicate that some kind of intentional activity underpins what is thought to be necessary to
being original. There cannot be a specific need to intend to be original (in the world). All that is really pointed to is that we look to a thinking being whose thinking is purposive and constructive. Here, one can act independently of others and then possibly find that what one offers is actually new in the world.

The third point about divergency is that any problem-solving will require an individual to sum up a situation, see connections between ideas, and suggest an idea which is not, of necessity, contained in the problem. At a simple level, if deep water is to be crossed, several solutions have been readily available for a long time. Yet, at any particular time swimming, using a bridge or using a tunnel could all have been original, and those suggesting the ideas could all have been thought of as creative. At least, they all point to what looks to be intelligent performance.

The idea of problem-solving in pointing to intelligent performance actually suggests a way in which the concept of creativity functions since those who act in these ways are considered to be creative. There is, though, one worry which I mentioned before, which indicates that while one needs to act intelligently to solve a problem, one may not need to have a problem in order to act intelligently. It is, of course, possible that problems emerge while one is engaged upon looking at something in a new light, but the whole has not been so much a matter of problem-solving as problem suggesting, or even more simply the offering of an idea. Here too there is a need to sum up a situation, to make connections and to suggest an idea which not only is not contained in a problem but which is not even given a lead through an existing problem.
Fourthly, the idea of divergency rules out the bizarre. I am not sure whether it was due to the early accounts of divergency or to the lack of understanding of what was being claimed for divergency that the concept seemed to be embracing the doing of anything unusual. Of course, to arithmetical questions there were definite answers, and in fact it is precisely because of the nature of certain questions, that they could only be treated in one kind of way, that Guilford began to consider other kinds of questions. These were questions or problems to which there were no necessarily right answers. This point has sometimes been missed.¹

Even here in the area of conjecture Guilford looks for logical possibilities. Now, it is true that there is always a difficulty that, even though logically possible ideas are suggested, people cannot at one point appreciate them. The work of Kuhn² actually illustrates this very well. Yet, if ideas are not logically possible, no one can ever appreciate them. This means that some people who actually produce logically possible ideas and are perhaps years later thought of as creative, are not thought of as creative at the time. The leading point of this way of looking at the idea of divergency is that positively it directs attention to the evaluation that is necessary and gives a reason why some activity could be valued; and negatively, that it suggests that if an activity cannot be minimally understood, there are no grounds for singling out the actor for praise, for such an evaluation would be out of place.

The last point in this consideration of divergency is that there is an accordance with the usage of 'diverge'. There is, of course, a sense of using 'diverge' where no kind of intention is part of its meaning, where, for example, we talk of lines or paths diverging, but from the moment we talk of people and what they do, we bring in the notion of intention. Only when it is shown that instead of doing things, people are acted upon, do we withdraw the implications of intention.

In an intentional sense if we are to diverge then we must have a model, paradigm or norm from which to diverge. The idea of 'verging' implies a path to be followed. So if we do not understand what constitutes the paradigm there is not a sense in which we can diverge from it. Apart from understanding the paradigm, we must if we are to diverge, move off intentionally. People wander because they are not properly conversant with a paradigm or they stray because there is nowhere in particular to go.

Usage, then, favours Guilford's suggestion of divergency since it can cover all the other points claimed for it.

Some pointers have already emerged by looking at the concept of divergency, and these can be linked quite easily to my original claims about the concept of creativity. These claims about the concept were based upon the kinds of meaning necessary and sufficient in being able to operate in three areas of usage. These areas seem to comprise the total.

It is useful to recall these three areas of usage. The first was the sense in which children were thought of as creative; the second
where we spoke of creative salesmen or creative footballers; the third, where we praised outstanding people like Shakespeare.

The areas have probably come about in some historical way, rooted in the idea of God's creation,¹ but there is also a psychological explanation of their genesis which adds weight to the arguments assembled so far. When we first learn that certain people are creative we may be unsure about precisely what they have done, and yet these people constantly reappear as great artists, great composers, great poets. Now until we can see why it is that they are thought of as great, we can only imitate what is said. However, there will also be a logical linking so that a certain kind of greatness or magnificence is connected to a concept of creativity. What is clear, and this gives etymological support, is that these great people have made things. Yet, and this is gradually discovered, other people make things but these are not thought of as great. The one point which the great people have in common is that they have offered something original: the essence of their particular brand of originality is something which may take years to be appreciated, but at least what is appreciated is that if we copy down a Shakespearean play or carry out an experiment on water displacement, we are not great as Shakespeare was or Archimedes was.

Therefore, without knowing what specifically is great or magnifi-
cent some concept of originality can be grasped which can be logically linked with a concept of creativity. While, then, we may be still unsure of what exactly is great about Shakespeare or Keats, we may be

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able to see greatness in Athletics, Football or Music, and because in any of these fields we also acknowledge originality, we can then make use of the second usage of the concept of creativity.

In the first sense where it is said that most children are creative, the greatness will not be so much in terms of what is offered but that it is offered, that in fact, these children are doing something which looks to be original. There is not the expectation of the magnificence which some people claim is in Shakespeare, nor the magnificence of other grownups because they are only children: but it is magnificent at this level.

So, in all three senses, originality and greatness, however much these may be toned down and however weak an understanding of them may be required, are both seen to be accepted as part of the implicit meaning given to the concept of creativity. Speculation on the psychological genesis of the concept in fact points to some logical requirements of the concept and renders all these usages legitimate.

However, while originality and some idea of greatness or magnificence can be seen to be necessary in rendering these usages legitimate, that any performance covered by the concept of creativity is necessarily also intelligent, may not be readily granted. In the first instance, people may simply dispute that the concept of creativity has any kind of reference to a concept of intelligence. When they hold that someone is creative, they look at what he does or has done, and then evaluate. Now in order to extract some admission from them, we could ask how they would know how to enable others to be creative. Yet, in reply they
could then say that they do not know, nor do they have to know: they merely evaluate what others have done. Thus, on this, Picasso, Shakespeare and Poincaré could all be creative.

Such a reply is superficial. This can be seen if we look at an analogy in another area of human evaluation. If people say that they easily recognise a morally good man but that they have no idea how to get others to be good, and all that they do is to evaluate, their position is very similar. Just as those who made an evaluation of others under the concept of creativity claimed that they did not refer to intelligent performance, so these claim that under the concept of morality they do not refer to freedom. Now, while it is not at all necessary to make an actual reference to a concept of freedom in declaring someone to be moral, it is not possible to employ a concept of morality without presupposing a concept of freedom.

In a similar way, while no direct reference need be made to intelligent performance under a concept of creativity, it is this which looks to be presupposed.

At this point, while it may be conceded by objectors who formerly claimed that they were only evaluating original, human performance, that something more than what is directly referred to must be taken into account, doubt may still be expressed about whether this 'something more' is intelligent performance. This is the second phase of the objection, and there are at least superficial reasons for this. One reason may be on account of the pervasive influence of the I.Q. metric, which links the concept of intelligence to performance, especially academic, but which does not seem to account for creative activity.
particularly in areas which are non-academic. Another reason is that it may not dawn on us, since on the face of it, there's an idea of intelligence, there's another of creativity, just as there are so many other ideas, all apparently quite disparate. One further reason may be that it is extremely difficult for us to commit ourselves explicitly to pinpointing what we have in mind.

One point, though, is clear. Problem-solving results in originality and such originality is often thought of as creative. To solve problems there is a need to act intelligently. This may be granted by objectors who may wish to hold that while it is possible that such problem-solvers may be creative they are probably working in specific areas, like Science or Technology, where the idea of problem-solving is appropriate, but not everything is like this. There are other areas of endeavour like Painting and Pottery and Sculpture where things are different. These perhaps are areas which have little to do with intelligence but a great deal to do with feeling.

Thus the concept of divergency points to a need for a clarification of the concept of intelligence first, because, although on the face of it divergency points towards intelligent performance, this has not yet been adequately shown; and secondly, because it does look as if we can still act intelligently without having need of a problem to solve, and to the extent that we may be thought of as creative. Moreover, the various objections to the concept of intelligence being a necessary aspect of the concept of creativity also demand that clear criteria be established for the concept of intelligence.
Limitations of Divergency

The idea of divergency has become something of a panacea for some writers,¹ but it certainly has its limitations. Some of these limitations have definite implications in the explication of the concept of creativity, whereas others call out for a clearer, more explicit account.

First of all, when we are said to diverge, from what is it that we do diverge? I have defended Guilford's usage of 'diverge' in that a model or paradigm must be understood, and that any movement away must be intentional; however, it is not made explicit exactly what is happening in divergency. We could diverge from the model itself or from the usual answers to problems which the model helps us to answer. An example from Ethics will illustrate both forms of diverging. We could keep to the Naturalistic model, and like Butler suggest that though there are other principles, to consider one's own interests in an enlightened way would lead us to be much better people; or, on the other hand, we could attempt, like Moore, to overthrow the naturalistic model altogether.

If divergency is a matter of either moving away from usual responses within a paradigm or completely overthrowing a paradigm, there is a possibility of being creative in either form: but that one form is related to the following of a model whereas the other is essentially to overthrow the model, is not brought out sufficiently well. What is true of Guilford is that under divergency there are two kinds of flexibility: the one, spontaneous flexibility which enables us to pass "from one category of response to another"²; the other, adaptive

1. See e.g. Torrance, E.P., Education and the Creative Potential, Univ. of Minnesota Press, Minneapolis, 1963, p. 5.
flexibility which presses for new ways of solving problems where ordinary assumptions may have to be rejected. From this we could say that both forms are catered for, but this is only true in a general way. If anything, because of the exemplification of divergency\(^1\) by Guilford and the kinds of tests advocated as a result of viewing divergency, the emphasis has been on remaining within an existing model. The actual idea of abandoning a model is there in embryo but more than this is required, first, to show the relationship between importantly different ways of diverging, and secondly, to emphasise what it actually means to diverge. The reason for these two points is that in singling out people for praise, the idea of originality is vital.

Related to this is that Guilford looks to be employing two senses of 'diverge'. When he talks about passing from one category of response to another, the example which he uses is of giving words similar in meaning to 'low', and he claims that we could offer 'depressed', 'cheap', 'degraded'.\(^2\) Now, in offering these words, we would show that we were flexible since if we merely kept to the category of height and did not entertain other categories, this would be inflexible. This, though, is the objection. In offering these words, are we diverging in the sense that we know the model and are moving off intentionally or is it that our answers are merely different from those of other people where the differing is not our intentional act? In the first sense there is a highlighting of an intentional act; in the second, this is not so. If then we say that it does not matter, that both are divergent, then 'to be divergent' is used in both intentional and unintentional senses.

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2. ibid.
Another related point concerns the validity of the idea of diverging when we are faced with a completely new problem. If, for example, we suggest a few ideas for solving the problem - and from the previous arguments it seems clear that the concept of creativity could well be called upon here - it is difficult to see what application diverging has. No other person could have offered ideas and so there is no diverging from usual answers. Nor, because the problem is completely new, is there any necessary model for viewing the problem.

Now, even when these points have been dealt with, three other kinds of limitations need consideration.

First, the idea of divergency is too suggestive of problems to solve, and while useful in some activities is not useful in others. It must be admitted that in very many pursuits there are problems to be solved but this is not to say that every pursuit can be characterised as problem-solving. Even in technical or scientific matters we would need to distinguish between the suggestion of an idea, and the problems which may be met in attempting to realise the idea. Yet, in other areas like painting, writing a novel or landscape gardening, the idea of solving a problem is quite often out of place. In fact, in holding to a concept of creativity we can admit of the possibility of problem-solving being encompassed but not as necessarily including it.

If anyone is creative, then it does not seem necessary that he must be aware of a problem to solve. He may simply see that a particular paradigm is inappropriate or that the suggestions of others are unhelpful. Further, he may not know that a problem has been associated with the enquiries he makes or ideas which he suggests. A poet may simply express his joy, and still be considered creative.
So, basically, the question is whether the concept of creativity necessarily involves the idea of problem-solving. Certainly, problems may be solved, but if we look at an analogy the point will be made clear. If religious meetings are encouraged, they will help the building trade. They may help in this way, but such help is not central to the idea of religious meetings.

Secondly, the idea of variety and quantity of suggestions is part of divergency but it is not certain that the idea is necessary. There has been a tendency to think highly of fluency where idea after idea is offered, and this indeed has been pressed quite strongly. Actually, in a particular piece of enquiry, it is likely that many ideas are entertained by creative people. To support this, while often in scientific or technological pursuits we only witness a final result like a washing machine or an aeroplane, the moves on the way to the result could well have been very numerous. In the same way it may be said that in a poem there may be a new idea in each verse, and moreover the final work may be the result of very many trials.

Yet, even if it is true that as a matter of fact those who are thought of as creative have actually offered variety and quantity of ideas, others not thought of as creative may have made similar offerings. In this case it is not the variety and quantity which become crucial. All people may have dreams but perhaps there are few, like Coleridge, who make use of them. If, then, Coleridge is thought of highly, it is not because he had dreams, since all others may have done, but because he used them to advantage.

Further, the manner in which people conduct themselves is usually very personal. Some cannot work unless they are quiet or unless they have the right kinds of instruments or unless they smoke.¹ Thus some may suggest many ideas, others very few. In saying that one is creative we do not know how he has operated. A concept of creativity cannot then necessarily embrace the idea of offering variety and quantity of ideas, however appropriate these may be.

Again, if many ideas are suggested what is crucial is that people are bright enough or intelligent enough to recognise which idea is worth pursuing. Some people may suggest an abundance of ideas but not be intelligent enough to light upon the most important.

Lastly, a first idea may well be sufficient. Others may not be central at all. A concept of creativity cannot declare upon the matter.

The third limitation is that the evaluative nature of divergency is not sufficiently explicit. In assessing whether someone is divergent there is some kind of commitment to certain value stands. We may show this especially in the problems which we offer to others, connected say to fuel supply, to fast cars or getting to the moon or in the questions we may ask concerning the wrongness of a social arrangement or the inefficiency of a particular tool. We may show this too in considering the ideas actually suggested by people. The difficulty is that the values which one holds will be those upon which one decides that others are divergent and indeed intelligent; and these values may not be rationally supported values. Divergency, though suggestive of acting away from existing ideas, has tied the values of acting intelligently too closely to values held

about existing problems without any explicit statement about the essentially evaluative nature of it. By bringing out this evaluation we are in a better position for examining the values we hold; by overlooking that it is an evaluation we can pass to the assumption that the same applies to the concept of creativity which would be a dangerous assumption.

What divergency offers

Because of some very definite limitations within the concept of divergency, it is not possible to consider it satisfactory in the explanation of the concept of creativity. However, there are points which are helpful in directing attention to what is crucial.

Checking what is crucial can finally be done only by seeing whether what is explicitly claimed coheres with central usages where there exists an implicit meaning. The most important usage is to single out certain people like Shakespeare and Galileo and to praise what they have done. Under this usage, all those people who are praised have done something original, indeed original in the world. From these two points, namely that they are praised and that they have acted in an original way, we can deduce certain presuppositions.

This is so because in examining various associative ideas centred on the concept of creativity, it has become clear that whenever any mentalistic idea is used, it is based upon the idea that there is a starting-point in terms of mind. Now, in praising people we must acknowledge that they have done something. Clearly, this cannot be accidental for then praise would have no point. This praising, this imputing of intentional activity can only make sense if thinking is presupposed.
Moreover, since thinking may be at a very ordinary level, where for example we merely think of what we had for dinner, the kind of thinking required to produce something original, especially original in the world, will be more than this.

In drawing to itself the important substance of the other associative ideas, the concept of divergency not only makes sense of certain presuppositions of the concept of creativity but also gives pointers to a clearer understanding of these presuppositions. There are four important points which can be considered here.

First, there is no insistence that to be original one must be original in the world. Clearly, this looks to be the primary meaning if we consider people like Kant and Einstein, but it must be allowed that we do characterise others as creative when what they offer is original in that it is not copied from or even influenced by the work of others. Again, what is done within a group may be comparatively original.

Under the heading of originality, divergency presses that this comes from humans, and thus even apart from Guilford's model of the structure of intellect, allows for and insists upon a concept of thinking as necessary.

Secondly, because divergency is seen to generate logical possibilities, this again is linked to a concept of thinking. With this point in mind, there is an opening out of the possibility of understanding what is offered. An illustration from De Bono will make this clearer. In developing his idea of lateral thinking he holds that "if a solution is acceptable at all then by definition there must be a reason for accepting it".  

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If ideas have some logical basis, while it is true that not everyone will see them, either through lack of ability or some kind of commitment to an already accepted paradigm, there is always a possibility that they will be seen: and because of this, there is a possibility of giving praise to the originator.

Thirdly, because divergency is seen in the area of problem-solving, and this requires understanding and the suggestion of ideas, there is a need for intelligent performance.

Fourthly, divergency opens out the possibility of considering a concept of intelligence which is wider than that of the I.Q. metric in so far as the kinds of problems which can be encountered are open and so beyond those of the I.Q. test whose questions are closed.

Conclusion

From what has been said, there are both negative and positive points about the concept of divergency which together are suggestive of what constitutes a concept of creativity.

Negatively, what is crucial is that first, while we may be concerned about problem-solving, what we are necessarily concerned with is the suggestion of ideas. Secondly, any suggestion may be concerned with many and various ideas, but necessarily with one idea that is worthwhile. Thirdly, while clearly an evaluation exists, this has remained merely implicit and it should be made explicit.

Positively, what is crucial is first, originality, but as soon as we understand what it means to be original we shall presuppose intelligent thinking.
If we subject the usage of the concept of creativity to scrutiny, these negative and positive points suggest that together they form what is necessary and sufficient to the concept.

However, the suggestion now needs to be argued much more fully. It is one thing to say that the concept of creativity necessarily embraces intelligent thinking but quite another to show that this is so.

To defend this and eventually to bring together all these negative and positive points, a concept of thinking must first be considered.
CHAPTER 3

A concept of Thinking

Introduction

What gradually became clearer in the first chapter, when ideas associated with the concept of creativity were discussed, were three main points. First, the concept was mentalistic, and even though it was countered that usage connected it with things or products, this was only ever by transferred epithet. Thus it was seen that the concept was directed at what people do. Secondly, the concept picked out an award of people's efforts and here it was clearly evaluative. Thirdly, if there was to be any accounting for an evaluation of what people do, at the very least it must be allowed that they think.

Similarly, in discussing the concept of divergency which is certainly suggestive of a concept of creativity, the idea of acting originally which is necessary to both concepts is one which presupposes thinking.

For these reasons, some account of a concept of thinking is necessary.

Furthermore, as I shall show later, intelligence is a concept which refers to a certain kind of thinking. If what I have maintained so far is true, then a concept of creativity will rest upon a concept of intelligent thinking. This can genuinely be defended only if an analysis of the concept of thinking is first offered.
The need for being explicit about the concept of thinking

There are numerous indications that the concept of thinking is simply taken for granted. Frequently, for example, we talk in Education of developing thinking in people. Divergent thinking is something which many would wish to develop in opposition to convergent thinking. Again, it has been claimed that we ought not to inhibit the development of rational thinking in young people. Even if we are asked what thinking is we can usually only offer synonyms, and perhaps the reason is as Cook Wilson suggests, that it is sui generis.1

Particularly because of this last suggestion, we all know what thinking is, and further we could hardly live in a community for long without knowing what it means. However, there are other concepts like 'knowledge' and 'belief' which are just as familiar to us and yet the explicit attempt to become clear about them is very difficult.

It may well be, then, that the concepts which we have are sometimes very generalised, and may sometimes show grave discrepancies at an interpersonal level. One example of this is the concept of intention. There is even a saying that 'the floor of Hell is paved with good intentions': and yet, the concept of intention is the corner-stone of any theory of morality which can begin to have credence.

Specifically with a concept of thinking, some people would maintain that this is the preserve of the head and not the heart; and perhaps go as far as holding that because it goes on in the head, it directs what the rest of the body does. Yet, according to Ryle this would be to mis­-construe completely any concept which refers to mind. Again, because of

a traditional separation between body and mind, it is sometimes imagined that Art is the area of feeling which is presumably in the body. This, of course, is all the more difficult since so frequently is the concept of creativity associated with the various forms of Art.

There are then two reasons why it is important to try to demarcate the concept of thinking. One is that it may remain merely implicit and therefore we may be vague about its implications. For example, while it is possible that some of the Greeks who were questioned by Socrates about justice, were operating quite sensibly within the concept, there were real difficulties in trying to see the kinds of relationships which the concept had to virtue. Equally, with a concept of Thinking while it remains implicit there are insurmountable difficulties in seeing whether or not this is related to a concept of Intelligence or whether these two concepts are related as genus to species, merely because there is no explicit way of looking at the possible implications. Not only are the implications of a philosophical nature. We may, for example, need to discover whether thinking can be controlled and if so, how it can be controlled. Further, it may be maintained that the kind of thinking in which we operate is conditioned by the group allegiance that is ours. While our concept of Thinking remains implicit we can call upon no evidence either to support or refute such an idea.

The other reason, of course, is related to the first. In a very closely-knit community, the concepts which people have with regard to everyday life are normally put to crucial tests frequently. Even then, it is surprising how often concepts which can only be tested out obliquely show that people work on very vague concepts. For example, we may be
able to test that someone has a concept of a table or a fork because some
direct counterpart to the concept has physical existence but others like
'authority' can only be tested in an oblique way if we have to observe
what people do in relation to how they conceive of authority. When
people are moderately explicit and refer to the various examples of what
they call authority, their statements are often in conflict with what is
held by others.

Being explicit, then, is important. However, in any attempt to be
explicit about the concept, the very concept of thinking is employed. On
this view, this is one concept which is so basic that there is no
possibility of ever making it explicit. Yet, if it is so basic, this
does not seem to prevent people from saying things about the concept in
an indirect way.

For example, Graham Wallas in 'The Art of Thought' seems to have
implicit assumptions about thought. Certainly he divides it into the
"concentrated mental activity of the professed thinker" and that which is
penetrating and guiding other activities,\(^1\) and here there is a possibility
of putting forward a theory that thinking is what is presupposed in any
activity: but along with this division, while it has something to do
with Logic,\(^2\) he holds than an achievement of thought could be the making
of a new generalisation or invention, or the poetical expression of a
new idea. Now other people may wish to agree with these points, but
these are apparently results of thought. Another point is that the
examples which he uses are academically bound, and then the wonder is

1. Wallas, G., The Art of Thought, p. 3.
2. ibid., p. 5.
whether Wallas would claim that thinking was presupposed in any activity.

Another example of a writer who says a great deal about thinking is Professor Peel. To grasp what could be meant by thinking, he says: "The pupil first experiences through his senses, something then goes on inside his mind and lastly certain actions ensue . . . . Thinking is what goes on inside the mind, in between sense-reception and effective action."¹

The assumption seems now to be that something can be said about thinking. Now, in looking at the implications of what Professor Peel says, it looks very much as if, though it may be difficult to demarcate the concept of thinking precisely, the concept may be tied up with others, which may be illuminating.

First of all, he makes a sharp division between thinking and effective action. Now, on some occasions a person may very well consider a proposal for a long time before he actually puts anything into operation. For example, he may wonder whether or not to take up an appointment which has been offered to him. He may work out the comparative monetary rewards, and he may have legal or even moral problems which need to be considered seriously long before he takes any effective action. On the other hand, an action may be performed by someone who does not do this kind of working out in detail. He acts at once. To account for this, it may then be claimed that the thinking is done quickly, and by the time he acts, the thinking has already been completed. Another way of giving an account of this, especially if there is no time at all for this so-called thinking to go on is to say that it is a reflex action. Yet, both these ideas support a mechanistic theory of mind.

¹ Peel, E.A., The Pupil's Thinking, p. 11.
Such a theory is insupportable because it does not do justice to the various concepts associated with mind. If, for example, we say that someone is intelligent, or thinks logically or has insight, then to judge of any of these we need criteria. We judge that someone is intelligent, for example, by whether what he does comes up to certain criteria centred on the concept of intelligent performance, which may or may not be implicit. Here, then, we cannot conceive of effective action without seeing it under some conceptual scheme. In this sense, then, effective action looks to be a thinking activity. However, the point which is being made here which is based upon a Rylean point of view, is a conceptual one. In this way there is not expressed any idea that a counterpart to the principle of mechanical causation\(^1\) is employed: and this is the objection to Professor Peel.

The conceptual objection is as strong if we consider Professor Peel's separation between sense experience and mind. What sense experience could be independently of mind is impossible to understand. Merely to gain any kind of experience will presuppose mind, and this is why, although the Rylean position may not be finally satisfactory, it does give us a means of employing concepts which is sensible.

To illustrate this point further and also to illumine the concept of thinking by seeing its possible relationship with other concepts, another quotation from Peel may be offered. Shortly after he has spoken about 'effective action', he says:

> But not all that goes on in between is thinking. For instance, the pupil may

\(^1\) Ryle, G., The Concept of Mind, p. 23
be active emotionally. Furthermore, thinking may take place without a start from the senses and without consequential action.\(^1\)

Now, to have an emotion is to see things in a certain way.\(^2\) To be afraid, for example, will indicate that one sees a situation as dangerous; to be sorry is to see that one has done wrong. Emotions are cognitively based and therefore seem necessarily to embrace thinking.

Here, emotions are not at all explicable without some concept of thinking but equally there may be a suggestion that thinking also involves emotions. Against this suggestion, it may be held that people think about a mathematical theorem or a logical argument quite unemotionally and coldly. Why they hold this is because certain emotions have been singled out where the effect of having these emotions is particularly marked in external behaviour and where such behaviour is publicly demonstrable to some degree. This would be so very frequently with emotions of jealousy and anger. It is probable that the term 'emotional' is actually used of those people who publicly demonstrate their emotions, and in this sense, the emotion of a Russell for mathematical beauty or for truth, or of a Socrates for truth and justice looks, on the face of it, too cold and calculating. There may be no sudden shout or movement; but the emotion will exist none the less. The implication of this is that emotion and thinking are conceptually related.

There is, however, in Professor Peel's idea something of importance

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which Ryle himself has not been able to refute. It is that thinking can be independent of any consequential action. Public behaviour at one stage in the 'Concept of Mind' looks to be the chief, and later the only criterion for using mental predicates. This movement may be evidenced when Ryle says in the first stage that when we use mental predicates to characterise people, we are describing ways in which people conduct parts of their predominantly public behaviour;\(^1\) and when, in the second stage he claims: "Overt intelligent performances are not clues to the working of minds: they are those workings".\(^2\)

From the standpoint of an external observer, unless someone engages in some publicly observable behaviour, there is no evidence available that thinking is going on. It is true that Ryle accepts that mental processes occur,\(^3\) and he goes to some length to explain that he does not wish to deny the point. All that he claims is that a statement about mental processes should not be conjoined or disjoined with statements about physical processes.\(^4\) On the face of it, then, Ryle seems to be agreeing that thinking is possible without any outward manifestation, especially as he also says:

> Boswell described Johnson's mind when he described how he wrote, talked, ate, fidgeted and fumed. His description was, of course, incomplete, since there were notoriously some thoughts which Johnson kept carefully to himself and there must have been many dreams, day-dreams and silent babblings which only Johnson could have recorded and only a James Joyce would wish him to have recorded.\(^5\)

1. Ryle, G., Concept of Mind, p. 50.  
2. ibid., p. 57  
3. ibid., p. 23  
4. ibid.  
5. ibid., p. 57.
The incompleteness of the description ties up not only with the idea of Peel but also with the following two points which are related to each other. First, we are conscious ourselves that we have ideas, that we daydream where it is difficult for others to begin to look for evidence that this is what we are doing. Because of this consciousness and our apparent similarities we infer that others also engage in non-externalised activity. Next, because of our stillness or the pose which we take up at times when we do think, people may ask us what our thoughts are. This at least will imply that others presuppose thinking to go on independently of anything beyond the stillness or pose. Moreover, in our learning of the concept, that others accept that we can think without externalising our thinking, the concept of thinking will cover this.

A way of becoming clearer about the concept of thinking

The argument so far points to a conceptual link between thinking and emotion. Further, while we may accept that human activity may be looked upon as thinking, we cannot accept that thinking is necessarily characterised by public behaviour, in the Rylean sense.

There are, however, two further ways of becoming clearer about the concept of thinking. One way is to see it as a genus and then to examine what are said to be its species. This method is circular, but it will indicate an interconnection between concepts which looks to be necessary with certain clusters of concepts. For example, if a person says that he does not understand the concept of furniture, I can help him by telling him that it is a class containing objects like chairs and
tables and sideboards; yet in one sense, if he has grasped what chairs, tables and sideboards are, he has minimally seen what a concept of furniture is. On the other hand, if I give an account of the concept of 'furniture' without mentioning any particular species, then all I can offer is a tautology.

This method may be illuminating and it is one employed by several writers, notably Thomson. He has found six different meanings of thinking.¹ The first meaning covers autistic thinking; then it is used as a synonym of remembering; imagination is the third, and this is different from autistic thinking because "it is evoked primarily by external sources of stimulation".² Next, when the command 'think what you are doing' is used, an attitude or frame of mind is expected to be adopted. Fifthly, it can be used instead of 'believe'. Finally, there is reflective thinking or reasoning.

As soon as we look at the species of thinking we are faced with the same kind of problem as we are when we look at the species of furniture. The problem is to work out in terms of what precisely a chair is an item of furniture. Similarly, when we look at reasoning and autistic thinking which would cover dreaming and hypnagogic imagery, we shall find that it is difficult to say what both concepts share unless we say 'thinking' or offer a tautology. At least, though, if somebody has understood what reasoning or reflective thinking is, he has minimally grasped a concept of thinking so that he can then gather, for example, what 'think what you are doing' means. Yet, in both these species there looks to be a clear

activity, so much so that the genus thinking equals an activity of mind. On the other hand, a difficulty presents itself if autistic thinking is considered an activity of mind. The reason is that while activity is used in the physical sense to cover what goes on, this description if used of humans would blur a vital distinction between what people's intentions are and what happens to them. One clear example of a blurring of this distinction would be in holding that an epileptic can help what he is doing. Certainly there is something going on but what is going on can only be interpreted in terms of what is happening to him; and this looks to be covered by a concept of passivity rather than activity. Now, in autistic thinking all kinds of ideas can be entertained, and in dreaming especially there appears to be little control over what is happening. Even if it were shown that the dreams which we have are the result of how we conceive of the world, which would be a difficult proposition to show in view of the bizarre nature of some of them, we are still aware that however much we try on occasions to push certain thoughts away from us, the task is too much for us. This must mean that the thoughts themselves impinge upon our consciousness in a way which we do not control. If now it is said that while the thoughts are presented to us, the actual thinking is ours, and therefore controlled, this is a quibble without substance. Simply by varying a part of speech nothing is shown. To say that one had a dream is no more and no less than to say that one dreamed; and in the same way, to say that one was thinking is to mean that one had thoughts.

There is, then, in some species of thinking an idea of a lack of control whereas in most, especially for example in rational thinking, there is a very strong sense of control. It is for this reason that in
studies of Thinking and also in popular usage, a meaning is assumed or given of what may be termed the real or proper concept of thinking. In some studies what is considered is how we form or attain concepts and this is especially the case with Bruner's 'A Study of Thinking'.

When Bartlett gives an account of thinking, he offers the following:

The extension of evidence in accord with that evidence so as to fill up gaps in the evidence: and this is done by moving through a succession of interconnected steps which may be stated at the time or left till later to be stated.

In the story which Bartlett relates about returning to a large American town after some years' absence, he tries to show how he remembered certain points, and also how, along with the remembering, he made use of many other cues. Together these enabled him to get to his terminal point. According to Bartlett, the making use of any contributory sources of evidence to reach such a point is characteristic of thinking.

Popularly, a similar position is maintained. The idea of 'a thinker' confirms Bartlett's point; and sometimes if a particular problem or investigation is to be considered, we hear somebody say, 'you are not thinking'. There is an analogy in connection with other activities like drawing and writing, when people say, 'that's not writing', even though what is done appears to come under a general description of writing. Within some concepts there may be levels, and when the term used of the concept is employed by way of assessment, an aspect of the concept is being emphasised.

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2. Bartlett, Sir F., Thinking, p. 75.

3. ibid., p. 74.
What, then, has to be decided is whether the concept of thinking centrally embraces a strong, intentional activity whereupon some so-called species are merely peripheral; or whether ideas of uninvited thoughts, dreams and, further, of having one's thinking controlled by others, are all part of the concept of thinking.

A method of escape would be to offer some stipulative definition of thinking or to claim that we are going to discuss certain forms of thinking, leaving quite open the question of whether say, hypnagogic imagery is a form of thinking. Again we may omit any reference to the term 'thinking' in case our conceptual schemes are attacked, and merely talk about Autism.

However, while we have expressions like 'muddled thinking', 'inconsequential' or 'vague thinking', 'dominated' and 'dream-like thinking', the concept must be wide enough to embrace much more than the strong, intentional activity of 'the thinker'. If anyone objects and says that any of these is not truly thinking, then he should account for these expressions which carry a meaning in our language. If, therefore, some meaning is to be given to these expressions, we cannot hold that thinking is necessarily an activity of mind unless at the same time we are prepared to accept that a person can engage in an activity which he in no way controls. Because of the difficulties of maintaining such a position, and to judge of these difficulties an attempt will be made presently to look at the concept of activity and its connection with a concept of thinking.
Thinking and Consciousness

The other way of attempting to clarify the concept of thinking is by seeing its various species as related to a concept of consciousness. This is so because there are many terms used which give some conceptual insight into mind, and among these terms are 'being aware', 'knowing', 'understanding' and 'seeing meaning', and all these can be interpreted in some measure by a concept of consciousness. Not only is this true but also, consciousness runs through all the various species of thinking.

So the extent of the concept of consciousness may help us to judge of the particular cases when we would employ a concept of thinking synonymously with a concept of consciousness.

First of all, if we take any of the accepted species of thinking, none of these can be interpreted without a concept of consciousness. To remember or to daydream or to think rationally will all therefore presuppose consciousness.

Moreover, some concept of consciousness is also employed to cover precisely what we mean when we use the various species of the concept of thinking. For example, to remember is to be conscious of memories, to think rationally is to be conscious of rational moves. In these examples where consciousness and thinking look to be conceptually synonymous, it is never sufficient simply to be conscious, as if in a state of readiness. However, this very state is all that a medical practitioner seems to mean when he says that a patient is now conscious.

What would be necessary here would be that a conscious creature would be capable of using its senses or engaging in some species of thinking.
Now in this state, things can act upon us. All that we can say, then, is that consciousness may be merely a state or it may mean that we are conscious of something, in which case it is being used synonymously with thinking. What must also be stated is that while we make this distinction, the threshold of thinking remains vague. It is likely that because for the most part we are reduced to finding out whether people are in fact thinking by observing their behaviour or by asking them, that when behaviour is at a standstill or virtually so, we cannot tell precisely what is happening. If after the standstill people tell us what, if anything, they had in mind, we can accept that not all was completely still.

Again, to bear witness to their testimony, we are sometimes aware that during a period of what is an apparent standstill we too have been conscious of something. If, then, this consciousness of something can be accepted as one level and that to remember is to be conscious of memories, there will be various levels of consciousness, leading up to a point where 'conscious' means deliberate.

So, when we say of someone that he is just about conscious, we do not imply that he is thinking, although he may be. Here, consciousness is a state, available for activity or passivity. In fact, we use the term 'state' which indicates that we do not go so far as to say that he is doing anything or that anything is being done to him.

If now we look at one accepted species of thinking, namely autistic thinking, we may be very unclear about what to say of it, partly because frequently, when thinking is discussed, a strong intentional sense is meant, whereupon 'conscious of' is also accepted in the strong sense of 'deliberate'. Since, however, there are these three senses of consciousness, and also since we cannot claim that thinking is
necessarily an activity as opposed to a passivity, we can only mean by thinking that it comes under the concept of 'conscious of' rather than under a state of consciousness.

**A redundancy theory considered**

There are grounds, then, for the holding of the following points. The concept of thinking, in a strong sense, comes under a concept of activity. However, in its weak sense, where there are instances of thinking where no control is exhibited, thinking cannot be subsumed under activity. Moreover, there is no sense in which one can have emotions unless one thinks. Further, while the concept of thinking presupposes consciousness, there remains a sense of consciousness which covers a vague area where we are unsure about its necessarily being synonymous with any species of thinking. Lastly, while it is true that for the most part we have to rely upon what people do in a public way in order to determine whether they are thinking, a concept of thinking is wider than this purely behaviouristic account.

Some clarity has therefore been achieved but there is an even clearer way of demarcating the concept, and that is by examining the implications of an attack upon the validity of the concept itself.

Such an attack can be launched by showing how, whenever the verb 'to think' can be used, it can be replaced by other expressions. By employing these other expressions, the verb 'to think' is made redundant; and so, on the face of it, the various forms which the verb takes can be seen as convenient linguistic ways of expressing ourselves.

To illustrate the point, the following examples show some of the forms which the verb 'to think' takes:
a. I think it's going to rain;
b. People used to think that the earth was flat;
c. Think a little more about what you are doing;
d. I'm sorry I marked you absent but I thought you were.

These sentences can all be converted without loss of meaning, to forms in which the verb 'to think' is omitted. The following sentences would be legitimate:

a. Perhaps it will rain;
b. As far as people were concerned years ago, the earth was flat;
c. Be a little more careful about what you are doing;
d. I'm sorry I marked you absent but when I looked I couldn't see you.

Certainly, in the rewriting of the original sentences, the linguistic expression of the concept of thinking has disappeared; but this is all that has disappeared. This can be shown by a closer examination of the meanings behind the various sentences. In all the examples, independently of the actual linguistic expression, the primary meaning implied by the converted clauses is that a viewpoint or outlook or way of viewing the world is being offered. For example, to give meaning to a statement like 'Perhaps it will rain', a hearer will presuppose that the speaker is looking at the world in some way or is adopting some stance.

So, whether some form of the verb 'to think' is employed in these sentences or an alternative form of wording is offered, an identical meaning is presupposed. The same, of course, is true of any synonyms which are used, like consider, ponder, arbitrate, cogitate or reflect. All suggest that the subject looks or should look at the world in some way. In fact, whenever the verb 'to think' in any mood or tense, or the noun 'thought' can be used, it can be replaced by some expression,
which in the first person may be formulated thus: 'this is my existing
outlook on the world'.

If this is conceded, an immediate link can be seen first of all
with that aspect of consciousness which I have called 'conscious of'.
Therefore, from the moment one can have an outlook on the world, one is
conscious of something, however vague, however confused. Not only is
this true of those instances of thinking which demand an effort, as in
rational thinking, but it is also true of the weaker senses of thinking
where it is said that thoughts simply pour in or that certain thoughts are
already present however much we try to exclude them.

This means, therefore, that even when we speak of dreaming or day­
dreaming or hypnagogic imagery, all of which cannot properly be said to be
controllable, we are still speaking of thinking. Thus, under 'outlook'
all the various species of thinking can be subsumed. This means, of
course, that intention is not necessarily part of the concept of thinking,
although it will be in the strong sense of thinking. There will
certainly be difficulties at points in determining whether thinking is
intentional or not; but the very same problem is continually with us in
ever determining whether someone is moral.

Thinking, as a concept, is therefore distinguished from all other
concepts in this way. Other than consciousness when used to signify a
state of readiness, thinking is the most basic concept used of mind.
Moreover, all other mentalistic concepts presuppose thinking. Therefore,
necessary to interpreting the concept of creativity is thinking.
Thinking and Language

In talking of any concept relating to mind, there is, of course, no locating to be done. If, therefore, thinking is a concept basically related to mind, all that can be done is to see the possibilities and limitations of using that concept.

Now, some people would like to limit the concept of thinking to those who can speak; and they would, therefore, see the possibilities of thinking linked essentially with speech.

There are two points to be considered here. First of all, in order for us to make a claim that someone is thinking, we shall need evidence; but we can be perfectly aware that another person has an outlook or is thinking by his facial expression. Next, though we need evidence for claiming that someone is thinking, there is still a possibility that he is thinking even though we cannot make the claim that this is so.

If the position is stated in this simple way, it looks odd that people could have viewed things differently. However, not only have there been different approaches but these approaches also have serious implications for all other concepts which rest upon a concept of thinking; and for this reason alone what is central to these approaches ought to be examined.

Central to these approaches is that speech and thinking are as one; and, in a direct line from this view is the idea that thought can only come about through language. The writing of Thomson is of particular relevance especially to the second view but it is also useful in that he cites the first one.
Thomson, for example, mentions J.B. Watson who "reduced thinking to inhibited speech located in the minute movements or tensions of the physiological mechanisms involved in speaking". \(^1\) Thomson himself does not agree with the identifying of thought with language, but he certainly believes "that the non-linguistic skill involved in thought can only be acquired and developed if the learner is able to use and understand language". \(^2\) By language he obviously means verbal language since he says in this connection that often we have to struggle to find words in order to capture what our thinking has already grasped. \(^3\) Even the mention of this struggling for words indicates that the position he adopts is untenable, for there is certainly a development of thought here without the necessary language: but this point can be developed a little later.

First, then, concerning the approach of Watson, we can see that it assumes that thinking is the prerogative of man as a speaking and therefore social animal, who has, moreover, learned the trick of talking to himself in silence. \(^4\) One obvious implication of this approach is that before a child has speech he cannot think.

There are three objections to this but the clearest objection is that people who are deaf and dumb show that they have an outlook, and to have any outlook at all is necessarily to think.

The second objection to this view is important to consider because it shows exactly how thinking must be viewed. It is related to how

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2. Thomson, R., ibid.
3. Thomson, R., ibid.
possibly anyone could make anything of the world, especially that way of looking at the world which is dependent upon language mastery.

To experience anything, there is necessarily a trying-out of things - at least etymologically, but what can be shown is that etymology supports current usage. Now, if I am to try out dancing or translating a French poem into English, there are certain pre-requisites, if usage reflects etymology. I need a scheme whereby to interpret what is there for an interpreter. Even when the term 'experience' is employed superficially to indicate that an individual appears merely in the midst of things or occurrences where he looks to be in a passive state, some kind of activity on his part is necessary. For example, a situation may arise where one is shipwrecked or attacked, but unless one can see any such situation in a certain light, unless one is conscious of something, there is nothing to experience.

So, in order to experience anything, some conceptual scheme is necessary. To feel or to see this something, I have to see it as something. I have to impose upon things a form, say even of unity. Even to acknowledge that something is there, I must do something. I must impose a structure like 'here now, gone' or 'presence and absence', if I am to see anything.

Therefore, if I agree with Kant that everything starts in experience, I cannot see how anyone could make a start. For that reason, it must be held that the very first recognition of anything presupposes a recognitional set-up. If there is not a first, there cannot be another.

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1. These ideas have already been argued for by Dearden, R.F., in 'The Philosophy of Primary Education', R.K.P. 1968.
Because of this, thinking is a presupposition of all other concepts which refer to mind. This can be illustrated at any level, but the pre-verbal level will make the point clearly enough. If, for example, a child finds his bottle repeatedly even though there are other similar objects within his grasp, then he looks as if he can distinguish between one object and another, and for this reason he must be thinking. If now it is said, as a counter-attack, that the infant is merely operating within a pattern of instincts, then we must also say that an older child who requires a bigger brick or a longer piece of string and who repeatedly rejects the smaller brick or the shorter piece of string, is acting within a pattern of instincts. In the end, though, this acting within instincts is identical to having some conceptual grasp.

Basically, it looks as if a stipulative definition of thinking is being offered whereby thought is necessarily language-connected and therefore belongs to man; whereas instinct is appropriate to infants and animals. This view then has to be rejected in favour of thinking being necessary for the picking up of language.

The third objection is concerned with the idea that thought can only come about through language. When, of course, Thomson advances this point, he may only mean that although some thinking can be undertaken without specific language, all thinking rests upon an initiation into language. However, even if his claim is reduced to this, his position has already been overthrown by my arguments in the preceding section.

In fact, Thomson later reduces his claim when he says that "without language as developed and used by human beings, few skills could originate and develop beyond the crude trial and error stage". It is probably

true that thought can be helped considerably by one's having some
mastery of language, but a complete fusion of the two concepts is out
of the question. The reason for this is that in our viewing of the
world, the conceptual grasp that we have may or may not be dependent
upon a linguistic or otherwise graphically symbolic system. For example,
if we wanted someone to understand what the Naturalistic Fallacy meant,
we would necessarily envelop the idea by words: at no time would we
resort to asking him to look at something or to feel something. On
the other hand, if we wanted him to grasp something about Music, we
must at some point get him to listen to the sounds.

Now, it is conceivable that Music, since it can be symbolically
represented, can have all its symbols reduced to linguistic form (even
though that would be ridiculous), but any word or group of words employed
would have value only in so far as it had a referent. This referent,
the particular sound, would be logically irreducible to any linguistic
form. Of course, this argument would have identical validity in
considering a host of other activities, like Movement and Painting.

Directing attention to such activities may be done through language,
and it is likely that some form of language would have been used to
develop these activities, but that they originated in this way is not
so likely since without the referent, the language, merely because it
is necessarily a pointer, would have meant nothing.

This directing of attention would be helpful motivationally in
saying things, like 'try pressing your fingers more firmly on the strings'
or 'move your arms back as far as they will go'. Again, language would
be helpful for conveying ideas through analogy from one known activity
to another yet unknown, and indeed for suggesting points which could be
useful in seeing the possibilities or implications of an activity.

To realise that certain activities are extra-linguistic is of great importance for two reasons. First, there is a tendency to link linguistic expertise with cognitive ability, and actually Thomson's remarks about a 'crude trial and error stage',\(^1\) indicate this tendency.

Thomson actually likens this stage to the activities of chimpanzees, and children during their sensori-motor period. Now while these levels are probably very low, in that one is sub-human and the other in the early period of development, what characterises both is not only perception but an acting upon the given in such a way as to go from means to ends. If this is so, then because it necessarily involves having an outlook, it is also thinking.

A stronger point may be made in this way. Even if a situation is merely one of trial and error, the whole point about it is that once an error has been made, a move is suggested to correct it and not to repeat it. Essentially, the trial and error method is one of attempting to improve upon one's thinking.

This tendency to link linguistic expertise with cognitive ability goes back a long way, and at least to Socrates. Even though we make allowances for the Greeks of his time who apparently found difficulty in actually knowing what went to make a good man,\(^2\) Socrates was still wide of the mark when he suggested that because people could not say what constituted virtue, they did not know. To be explicit, as I have explained, is of great importance, but lack of explicitness will not

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2. See MacIntyre, A., A Short History of Ethics, p. 11.
show that implicit knowledge is absent. One leading example here is that when Kant analysed the concept of morality, people could see that this answered explicitly (and for the first time) what they had thought should have been done by them under this concept of morality.

Thus, while it is admitted that verbal language may be very helpful in promoting thought, and further that some activities which are engaged in are of their nature linguistic, thinking may still go on independently of verbal language. Merely because of the essence of some activities like Music, verbal language can only approximate to what is essential to such activities.

A concept of Activity and its connection with a concept of Thinking

There is another concept which ought to be considered more closely and that is the concept of activity because a problem exists about its relationship with a concept of thinking. The problem is that if thinking is a presupposition of all other mentalistic concepts (except consciousness when employed to indicate a state of readiness) then how does the concept of activity function? For example, if thinking is said to be an activity of mind, is this expression merely a synonym of thinking, or is the concept of activity a genus under which thinking is a species? To come to grips with this problem, and to see the interconnections between these two concepts, I would like to point to four particular difficulties.

First, there is a difficulty where people may oppose mental to physical activity. Secondly, a definite ambiguity exists within the term 'activity' where a distinction between cause and intention is overlooked. Thirdly, because of a strictly behaviouristic way of viewing
activity there can be made an invalid inference from external stillness.

Fourthly, sometimes because of a lack of clarity about the concept of activity, it is not even distinguished from a concept of passivity.

I shall deal with these difficulties in order.

The expression 'mens sana in corpore sano' indicates that something exists within some other thing. According to the theory which lies behind it, we can easily identify the other thing, viz. the body, and use the word 'physical' of it, but all that we can do about the mind is acknowledge it, like some invisible clockwork machine, possibly set in motion synchronously with the body, and use the word 'mental' of it.

One awful implication of this view is that the mental and the physical are opposed to each other. Here, then, people talk of mental activity, a doing of the mind, and they set against this, physical activity, an inferior brand of doing.

It is true that Ryle has argued vehemently against this view but there are within his writing indications (already alluded to) that the whole concept of thinking is behaviouristically encompassed; and this, as again I have shown, is unacceptable. It is therefore not possible to accept a Rylean viewpoint completely. All that can be done is to judge of the implication of a view where the mental and the physical are opposed to each other.

First, then, to judge of this, we use the concept of activity to direct attention to what is going on, when, for example, we say that a person acted with discretion or we refer to the activity in a beehive. However, while admittedly we refer to physical activity and apply the idea to humans, we can not merely be directing attention to what is
going on, in terms of a succession of movements. More is implied because we are addressing ourselves to something specifically human. For example, we may be talking of religious or mathematical activity, and if we look merely at what is going on, in terms of observable movements, we may misinterpret what is really going on. This is precisely why the particular movements of a human being may have to be seen in the light of some kind of intention.

Therefore, if a cricketer throws a ball back to the bowler, and the ball injures him, we cannot necessarily claim that the cricketer has engaged in the activity of showing disrespect to someone, however much we wish to hold that specific movement would be necessary in this kind of activity.

On the other hand, non-movement even physically may be interpreted as an activity of defiance or unacceptance. Thus, when we speak of what is going on, we are not necessarily referring first, to what is factually observable, movementwise: nor are we, secondly, referring necessarily to any physical movement at all.

What is probably true of activity of any kind is that movement is characteristic of our first psychological encounters with it; and it is only gradually that we are able to identify that in order to discover what is going on in relation to human beings, we have to interpret how they see things.

So, when we ask about what someone is doing, we do so to discover how to appraise his doing. We may want to know whether it is blameworthy or praiseworthy, sensible or stupid. It is only when we realise that all such epithets are inapplicable that we begin to search for explanations in terms of causes. One example is enough to make the point. If, say, a man is lying in the snow, then because of my empirical
expectation of a man's need to survive, his lying there strikes me as odd. When, then, I ask what someone is doing, it is because at the moment I cannot see how he sees the situation. If there is no explanation through an inference of his cognitive perspective, then I look to a causal explanation, which, say, points to his being drunk or drugged or incapacitated in some way. For him to do, I presuppose his seeing in some way.

The implication is that human activity, however physically manifested, is mentalistic.¹

Related to this is a second difficulty which centres on an ambiguity within the usage of the verbs 'to do' and 'to act'. Because human activity must be interpreted as necessarily mentalistic, there is not truly a sense in which someone can do something unconsciously although the idiom allows that this is so. In fact, the idiom perpetuates the idea when it allows us to say that someone acted deliberately, and to say that someone acted without knowing what he was doing.

However, in attempting to determine whether 'deliberately' or 'without knowing what he was doing' should be applied, we should initially check to see whether the term 'activity' is or is not conceptually applicable in a human sense. Here, then, we distinguish between what acting as a human means from what happens to humans. For, after all, once one's balance is lost, for example, one is simply like any other object in space, determined by various physical forces. If, then, we are clear that 'deliberately' should apply, this presupposes that someone has indeed acted - and this is the strong sense of 'act'. On the other hand, if we discover that the movements performed by a person who did not

know what he was doing were in question, then his doing must be in a weak sense, where all that is being claimed is that the person was causally operative. This position is exactly the same as when a car runs over someone. To do or to act in the strong sense presupposes intention whereas, used weakly, merely presupposes causality.

The third difficulty can be looked at like this. If we adopt a purely behaviouristic model for employing mentalistic concepts, we shall have to wait until someone performs an act before we can make an award. Of course, at times, we can actually interpret no particular act as negative behaviour, as we can in an obvious example of not voting, with the proviso that this is to be seen within a network of an individual's other acts. Actually, for the purposes of learning what can be meant by any such mentalistic concept, there is a need for externalisation: even in awarding, externalisation is necessary. When these considerations are borne in mind, we can see that what Ryle argues for in 'The Concept of Mind' looks plausible.

However, the plausibility is quite superficial because from the moment one learns a concept which is appropriate upon observing what someone does, then one can employ this privately. A prime example of this is in learning the concept of 'moral'. Once learnt, then for us to act morally, there is a need to judge possibly before or during or after a particular act: and what is stronger is that sometimes the act is not externalised at all. Clearly, it is true that no one else can award 'moral' to us, and just as clearly we can not employ it without first resorting to public criteria but the final awarding must come from us. We are the final arbiters.¹

That we can make such an award in the activity of moral and many other forms of thinking which need never be externalised will at least allow that the concept of activity cannot be circumscribed behaviouristically.

Finally, there has been some confusion about the relation of activity used in the human sense, and freedom. It has been held, for example, that activity can be free or unfree. This, though, sounds odd because if there exists an activity which a person in no way controls, how conceivably can it be called his activity? The point of this objection can be exemplified in this way. A commander may order his firing squad to shoot at somebody convicted of desertion. Now the men in the firing squad are aware of what is to be done; they know the effects of their actions, and may not want to do the firing. They may disagree with the ideas of the commander because they may detest the idea of killing another man. Here, then, they may be said to fire unwillingly. Yet, there is a sense in which the activity is theirs: no one is literally forcing their bodies to do certain things, where their bodies are simply tools manipulated by another. Again, it is not true that they are merely conditioned to perform certain actions where they cannot choose what to do. What really happens on occasions like this is that we choose to perform one activity rather than another in a hierarchy of values. Disobedience to the commander would be more troublesome than obedience, for example. It is only when, say through utter fear, we formally do what we are commanded to do that we become unfree. In this situation we become passive.

Therefore, while a casual spectator may think that he is observing activities, he may be wrong. He may be like the man who, for the first time sees another in a fit and wonders why he does such things. The point is that in the strong sense of 'do', he is doing nothing. He is being acted upon and is completely unfree.

A summary can be offered now that these difficulties have been expressed and overcome. Such a summary will be shown to link the concepts of activity and thinking if we first have a look at the way in which the writers of the 1931 Hadow Report speak of activity and experience, where they were particularly concerned about making sure that pupils were not offered inert ideas. These inert ideas were those which at the time of their being imparted had "no bearing upon a child's natural activities of body or mind and do nothing to illuminate or guide his experience".¹ Now, I can understand how a person can have an idea which he would like to impart to others but I do not understand how he can actually impart this to another unless there is some comprehension on the other's part. What the writers must be claiming is that an idea can be encompassed by words, and once the words have been said to another, then the idea has been imparted. Yet, to impart something will essentially give another a share in it. If we were to impart a secret to someone, we would presuppose that he understood what lay behind the words used. The very act of imparting anything logically requires activity on the part of the person to whom it is imparted. He must listen or attend or somehow experience what is offered. In a word, thinking is necessary.

Very likely because activity was probably used in a physical sense

first, whereupon we expected movement, the analogy has been pushed too far. Similarly, if we talk of physical conception we can imagine an actual grasping but when we employ 'concept' we do not really expect an actual grasping although we speak of grasping.

In one sense, then, when we talk of activity - as, say, of the activity of eating - we are at the same time talking of the various physical movements and of the overall mentalistic seeing. Here, we can say that all human activity is necessarily mentalistic.

In another sense, when we say that thinking is an activity, we do not necessarily include any physical point at all. Here, we say that thinking because it is one with having an outlook is also one with activity.

So, thinking may be, and probably usually is, manifested; and 'activity' is employed whether or not it is manifested. Yet, because of the distinction made between what humans do as opposed to what happens to them, activity in the strong sense is only concerned with intentional thinking, again whether it is or is not made manifest.

Conclusion

The concept of thinking can best be explicated by viewing it as having an outlook. By viewing it in this way, the various so-called species, like dreaming and rational thinking, can all be subsumed under the concept. This idea is all the more helpful because it does not imply a strong, intentional doing. We must, in other words, accept the idea that thoughts, quite uninvited, impinge upon our consciousness. For this reason the concept of thinking cannot be seen to be covered by
the claim that it is an activity of mind. It can be, of course, and is in most of our concerns, an activity of mind but in this sense we are employing the concept in a strong, intentional way.

To think will not exclude the having of emotions. On the contrary, the arguing has been to the effect that to have an emotion is to see things in a certain way which is impossible without thinking. Further, to think will involve some concern.

Apart from 'consciousness' when used to refer to a state of readiness, thinking is the most basic concept used of mind.

Now, in order to learn about the concept some externalisation would be necessary but thinking may still be pursued without any need for externalisation. Moreover, however helpful language, as normally understood, is, language is not necessary to thinking.
CHAPTER 4

A Concept of Intelligence, and its necessary connection with a concept of Creativity

Introduction

To think is to have some outlook on the world. If now we employ a concept of activity to explain this, we must be careful to distinguish the senses in which this concept is used.

The reason for this is that in its strong sense the concept of thinking presupposes intentional activity. On the other hand, in its weak sense the notion of activity which is being employed is one where there is something going on, much as there is something going on in radio activity. Where, then, we have some evidence that intention looks to be present, as for example in rational thinking, we have grounds for distinguishing this kind of thinking from others where, as far as we know, intention looks to be lacking.

Now, the actual connection between dreaming on the one hand, which conveniently may be termed a species of autistic thinking, and rational thinking on the other hand may be considered to be tighter than the connection between the unintentional and the intentional. There are two points which favour this consideration.

The first one is that the kind of autistic thinking which we have may be partly or wholly the result of our other, intentional thinking. Secondly, there may be elements in autistic thinking which look to have the marks of intentional thinking. What is being suggested is that

within a dream, for example, characters appear who act as if in an intentional way much as characters within a novel act.

However, while we can accept the possibility of some kind of connection between autistic and reality-adjusted thinking, precisely what the connection is, remains vague. If a clear connection could be made, as for example could be made between imbibing too much alcohol and being unfit to drive a vehicle, then we would be able to maintain that doing certain things leads to the having of certain kinds of autistic thinking, whereupon blame could be attached to the doing of certain things. At the moment, though, if we notice ourselves bombarded by thoughts or dreams, it would make little sense to us to be praised or blamed for having them, simply because we know of no way by which we could either promote or discourage them.

While allowing for a possible sense of mystery, what must be accepted is that the phenomenon of uninvited thoughts, dreams and hypnagogic imagery is probably the lot of most of us. Because of this, what is vital is to consider an aspect of thinking which leads to a possible evaluation which is positive.

Now, there are at least two forms of thinking which merit our approval, namely intelligent and rational thinking. What looks to be crucial, though in the explication of the concept of creativity, is intelligent thinking. The argument for this is as follows. To be creative is to be praised. Thus, one must engage upon some intentional activity. To do this one must think, and think in the strong sense. Moreover, to be creative one must be original. To be original is to see connections unseen by others, and this very seeing looks to be what is called bright or quick or intelligent.
This seeing of connections may be consistent with a rational pursuit but the difficulty is that there is always a possibility that once principles of rational procedure have been seen they can be partly ignored, say for the sake of self-interest. Here, of course depending upon the values which are held, someone may be thought of as bright or intelligent in pursuing self-interest even in opposition to the interest of others.

It is therefore the concept of intelligence which needs to be examined and made explicit if these points concerning the concept of creativity are to be convincingly held.

Once the concept of intelligence is examined, the concept of creativity springs to life as a special way of acting intelligently.

The relationship between the concepts of thinking and intelligence

One illuminating point in attempting to see a link between the concepts of thinking and intelligence is in Bruner's use of the term 'category'. At first, this looks to be quite a convenient way of talking about thinking because it identifies a method of classifying, and this classifying is not immediately obvious with 'concept'.

The reason for this is that 'concept' emphasises the grasp whereas 'category' looks as if it emphasises the manner of the grasp. So what could be said is that just as in ordinary physical conception there is an enclosing or a grasping, so by analogy this applies to the mind.


et alia
Taken in this way, to have a concept is to have a mental grasp. Further, the only way in which we can have such a grasp is through some form of classifying or categorising.

This seems straightforward but then Bruner speaks of two kinds of categories, namely perceptual and conceptual. Now the real difficulty is that in so far as 'category' is an idea used in talking of the concept of thinking, it is necessarily conceptual. Although, to exemplify the point, individual items in the physical world have to be perceived, they will have to be looked at in some way. Even in my identifying an object as being different from another, I must see it as individual, and therefore in a class or category of things which are individual. I must operate in my perception upon a principle of discrimination, and this principle is nowhere to be seen in the perceptual world.

Bruner can, therefore, only be sensibly interpreted by saying that a perceptual category is a concept which has reference to a perceptual object. In fact, Bruner says that logically speaking there is no distinction between perceptual and conceptual categories "save in the sense that the materials categorised differ".¹

So, the way in which 'category' is used by Bruner is especially helpful in that it stresses the manner in which concepts are concepts. In other words, there can be no grasp unless there is some form of classifying or categorising. However, a point which is also being maintained, which Bruner's language does not make clear, is that the categorising is conceptual whatever categorising is done.

To make this point clearer, when Ryle talks of a category mistake, he speaks of it as a conceptual error. Presumably, since Ryle is

sorting things out, he is concerned that if a concept is a grasp then this can only be so if ideas are correctly categorised. In his example of the person who claims that he has seen the batteries, battalions and the squadrons but asks where the division is,1 we can see that this is a matter of not properly grasping, because what essentially constitutes an army is not sorted. This means, of course, that there can be no concepts without some categorising. Having categories will therefore imply having a grasp, but not necessarily the logical one. This is what Ryle wants to rectify, so that we don't get hold of the wrong end of the stick.

The kind of labelling in which Bruner engages is similar to the talk of Dearden when he divides concepts into perceptual, practical and theoretical. Of course, Dearden only wants to emphasise that one particular grasp is brought about in reference to perceptual objects. Thus, as he uses perceptual concept, so does Bruner use perceptual category.

However, the talk is a little confusing because there look to be different kinds of concepts.2 However they are derived or whatever their reference, they are simply concepts. This can be explained by seeing what is essential to a concept. Even in Dearden's terms, to have a concept is to be in possession of a principle of unity,3 and a principle simply does not lie in perceptual objects.

The confusion arises not because the adjective 'perceptual' is used but because it is used to give a misleading notion that it describes

a difference in kind. A comparison may be made to a 'falling door'.
Now the door is not different in kind while it is falling, for it is
still, say, an oak door and seven feet long. 'Falling' does not tell
us about the kind of door that it is. Again, an identifiable or a
well-placed tree is not different in kind because it is identifiable
or well-placed.

It is legitimate to use adjectives like 'well-placed', 'falling'
and 'perceptual' so long as we do not think that such adjectives are
informing us about 'kind'. They may, as they do in these examples,
tell us something about how the kinds of things have originated, how
they are related to other things or how we see them.

Once this possible confusion is cleared, 'category' becomes quite
a convenient way of illustrating the functioning of concepts because
it emphasises the class nature of concepts.

So, it can now be said that within the strong, namely the inten-
tional sense of thinking, category is a most appropriate concept, and
this can be illustrated by looking first at some fundamental points
within the theory of Intelligence.

First, the kind of work done by people like Köhler indicate that the
learning which was being investigated was brought about by the animals'
ability first to categorise simply, and secondly to see categories
combined through an overall category of means - ends. Clearly enough,
the scope of employing categories was limited to a perceptual field
but none the less, if an ape can actually get hold of a banana which was
formerly unreachable without an implement, then the system of categorising
was of vital importance. Epithets to account for the ability of any such ape would be 'clever' or 'intelligent'. Quite popularly, it might be said that the ape was truly thinking. Here then, intelligent performance is looked upon as a species, and an important species of thinking.

Next, straightforward classification figures largely in I.Q. Tests where, for example, testees are asked to engage in picking out a discrepant element in a group. Thus the grasping of categories, the seeing of various relationships between categories are considered to be necessary in determining the Intelligence Quotient of someone. Once again, a particular kind of thinking is being picked out.

A third point which is illuminating with reference to the link between thinking and intelligence is Binet's work in the pioneering days of I.Q. Tests. 'L' intelligence' actually meant 'thinking', and Binet's special job was to evaluate the kind of thinking which was necessary in order to cope with the academic study required in the normal school. Binet's attempts to calculate this resulted in what have come to be accepted as Intelligence Tests.

Thus three leading points about the theory of intelligence are: the ability to categorise; the grasping of categories and their relationships; and the overall idea that 'intelligence' meant thinking. All these points indicate that someone is bright, quick, clever or intelligent in so far as he grasps a situation, and in each case a clear categorising is expected.

In ordinary usage, the award of 'intelligent' is made when it is
thought that someone has grasped a situation. If pressed, it is found that people employ an implicit notion of category to exemplify what they mean. They talk, for example, of 'getting things straight' or of 'putting things in the right slot'. Here, it is thinking of a special kind which is being assessed.

Still bearing in mind the appropriateness of 'category', there is a further point which links together the various species of thinking and which presses for the strong, intentional sense of intelligent thinking. When people are thought of as bright or intelligent, they are thought of highly. In other words, these are positively evaluative terms. On the other hand, what passes as Autistic thinking is accepted as non-intentional and as such warrants no praise or condemnation, but even here some form of categorising looks to be present. The link between the species, though, is this. A reflection, on the one hand, of the strong forms of thinking can occur in the weak forms; on the other hand, a dream or an uninvited thought could later be used intentionally. If Coleridge, for example, actually had the dream he spoke of, then that he made use of it is praiseworthy. Because of our lack of knowledge about the occurrence of dreams and other uninvited thoughts, some credence to mystery is allowable.

It may be thought that these uninvited thoughts, these dreams, these fantastic images amount to part of the processes of intelligence, but this looks to be a mistake conceptually. One reason is that any such processes are hidden, and therefore any award offered would have to be done by the individual concerned: yet, by the time he awards it, he has had to consider it, and moreover, if he is to give praise, it will be

in virtue of his consideration of the matter. If, for example, he thinks to himself that a particular dream was intelligent, then first he has made an evaluation. Yet, what more is there? If he is looking at events, these of themselves can have no credit unless he sees that such a combination is worth having. However, we can see various combinations in the world, accidentally effected, but if I say that they are intelligent, can I mean more than I can mean in the instance of the dream? In both, there would be wonder about what was meant. The implication is, of course, that even the evaluation is baseless.

While such uninvited thoughts have no direct, necessary link with the concept of intelligence, they may form the basis of intelligent performance. It would be with this in mind that Coleridge could make use of a dream, or Joseph of his dreams in Egypt. Left as they are, who can be praised? As sights for Coleridge and Joseph, they may be marvelled at, much as Niagara Falls may be.

Related to the point of uninvited thoughts is the idea that such thoughts may be common to most of us, but 'intelligent' is only awarded publicly if we make use of them; and only awarded privately once they have been evaluated. If somehow we can recall a dream in which someone has acted in accordance with what we consider to be the criteria of intelligent performance, then within this realm, on the presupposition of intentional activity, no doubt the award of 'intelligent' can be made.

The only trouble is that in the important sense of intentional activity, we would have to say that in view of the realm of dreams any award would be merely quasi-evaluative. The reason for this is that 'intelligent' is learned in accordance with public criteria, and only then applied privately. As applied to people in dreams, the position
would be similar if we were considering a novel or a play, where we would make evaluations of characters. It would certainly be odd if an individual on hearing about Fagin went to the ends of the earth to wreak vengeance on him; or if, as a result of observing a character in a dream, he longed for a 'repeat performance' so that justice could be done. The point is that the concepts of justice and intention begin to have no application at all.

The most that can be said is that any form of autistic thinking can be used. It cannot be said that if people are intelligent then they must make use of a form of autistic thinking; or, if they are not intelligent that they do not suffer autistic thinking.

So far, then, it has been argued that the concept of intelligence embraces thinking which is intentional and is characterised by an individual's grasp of a situation as evaluated by the user of the concept.

### Intelligence as an evaluative concept

The concept of intelligence necessarily carries with it a positive evaluation. This can be evidenced in the following ways.

First, the established Intelligence Quotient had in its founding father, Binet, an investigator who was interested in searching for a special kind of thinking. Separating those pupils who could cope with the basic subjects in the schools of Paris from those who simply could not cope¹ was a task which was essentially evaluative. A standard or norm was set up which itself confirms the evaluative stand. Again, in reference to I.Q. Tests when later Guilford² complained about the

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narrowness of the I.Q. metric, he did so by virtue of another evaluative scheme whereby he could see that divergent production was a good, unallowed for in the basic subjects which had become the general groundwork of I.Q. Tests.

Secondly, 'intelligent' tends to be used by those in authority in 'academic' work, and so the values of the teachers tend to rub off to the pupils. In other spheres, 'bright' or 'quick' or 'clever' are used but again in reference to the users. There is no sense in which the users are not praising what they see. If, then, an individual wishes in any way to identify with those using such terms, he is ensnared in the evaluative scheme.

Thirdly, there is a point which a learner of a language or even an experienced language user may not notice. It is that evaluative terms are picked up in accordance with a dominant value. For example, one may accept the values of one's parents, and begin to call good those things and those activities called good by parents. In the same way does this happen with 'intelligent' or any of its synonyms. If the values are anti-authority groups, then 'intelligent', 'bright', or 'quick' will be used of those kinds of connections made with reference to an overall avoidance of the effect of that authority. Because of the tying of awards like that of 'intelligent' to value schemes, then in changing from such a scheme to another, which is of course possible, an individual is faced with the prospect of finding difficulty in using the same concepts. For example, by seeing the particular value scheme which Socrates adopted which was not tied to survival physically at any cost, then those activities of his while in prison can be viewed as intelligent. A similar situation faces those who, say, adopt a new scheme of religious or other values.
While obviously there will be other criteria for awarding 'intelligent' since otherwise one evaluative concept would be as acceptable as another, the tying of intelligence to a value scheme is necessary, and as with any such evaluative concept, it will be linked to some dominant value.

Very closely linked with the preceding point is Piaget's idea of adaptation. Here the end is given as having value in itself. Piaget's whole scheme is based upon a biological model which may have some extremely useful implications: but the model has clear limitations as regards intelligence. There are two matters which should be considered here. First, on the point of adaptation, Piaget cites Clarapède who held that feelings appoint a goal for behaviour, while intelligence provides the means ('the technique'). Now, if we are to adapt and our feelings are modifiable, and are getting in the way, then acceptance of feelings would be contrary to the idea of adaptation. Thus, this view of free-floating feelings really needs to be analysed, to see whether they are localised physical feelings or emotions, and to check whether they are inevitable; and, moreover, while this view brings out the goal-directedness of intelligent activity, it stops short of examining whether the particular goals selected are intelligently selected.

The second matter to be considered under this idea of adaptation is that, in accordance with the idea, animals which adapt tend to stay alive, whereas for humans to press for staying alive represents an evaluation.

Both matters falling within this view of adaptation are worth taking up at this stage because of the unexpressed values which are inherent

in it, and also because it inhibits the consideration of final values which could be a matter of intelligent performance. If, further, the view were followed, it would commit us to a narrow concept of intelligence. I shall explain all this.

In various experiments conducted which we have heard about under the heading of 'Learning Theories', intelligent performance has been witnessed when a clear goal, like obtaining food, has been achieved through certain means. I do not object specifically to this. What I object to is the idea that the particular goal set up by those looking at the activity is necessarily the one set up by the one being examined. This actually has been one major difficulty in passing directly from animal to human enterprises: but, at least we can usually ask humans and not simply assume a value.

Next, the goal suggested in so many of these investigations lies outside of the means: and this tendency of looking for an end which lies outside of the particular activity in which people are engaging may be attributable to the kind of language which we employ when we speak of 'means - end'. Some particular activities may be engaged in as ends-in-themselves, and those people who ask instrumental questions of these activities will be unable to appreciate the intrinsic values of these activities, and for that reason will be unable to award 'intelligent' to them.

This example shows how inextricably woven is a concept which embraces 'means' and 'ends'. With the Piagetian notion drawn from Clarapède which presses for adaptation, 'ends' becomes a different,}

hived-off concept and simply accepted. Feelings have appointed the ends; and that's it. Yet, suppose someone accepted an end like sitting quietly or counting one's money, isn't it apposite to ask whether it is bright or intelligent to accept any such ends as these? If this question can be asked, won't it show that the concept of intelligence need not be restricted to the acceptance of any specific ends?

Thus the point on adaptation as an end clearly informs us that unless we understand the value scheme in which someone is operating, we cannot appreciate fully what he means by 'intelligent'.

Fifthly, with regard to the actual preparation of the bulk of I.Q. Tests, an evaluation was made about the area which the material should cover. That this was decided to be Language and Mathematics would, in fact, be to the disadvantage of those who, for example, were unaccustomed to what Bernstein has called an 'elaborated code' of speech, and also to the disadvantage of those whose background and beliefs were contrary to the ethos of the school.

A sixth point is that among early investigations into the idea of intelligence was Galton's work. Ideas of intellect, intellectual gifts and intelligence have been worked in together and have carried with them a notion of doing well publicly. Those people, in fact, who were looked at by Galton would have been those who had received something of a scholarly upbringing, and so the assessment of them was already in the academic sphere, even though admittedly Galton was interested in obtaining correlations by means of psycho-physical responses.¹

Finally, there are two misuses of the term 'intelligent' which point

very clearly to the evaluative function of the concept. These are the magical and imitative senses. Concerning the magical sense, an overall idea of the end of a specific activity is accepted but the intricacies of the means are not understood. For example, suppose a footballer were to run to a position away from goal and away from the ball, he could be seen to be stupid by those who misunderstood the various roles of team players. This would be even more marked if no result ensued. On the other hand, if some movement like this, which looked inappropriate to spectators, resulted fairly regularly in a goal being scored, then the spectators would view it as intelligent in a magical sense because it would appear as if it were related to the end they themselves had. What is actually done is hidden: all that is known is that certain means have been taken up which have achieved certain ends.

Concerning the imitative sense, this is in common with the way in which children pick up the function of so many words. Thus, if grown-ups use 'clever' or 'intelligent' of some people, because the tone and manner of using these terms are indicative of praise, others who may not understand the reasons why some people are thought to be clever, may still follow the usage.

Long before children are aware of any reasons for liking certain people or of disliking others, their particular attitudes can already be detected. Actually, in giving an account of prejudice, that people have already adopted value stands with minimal understanding indicates how awards can be made chiefly through imitation.

Now, because 'intelligent' would have currency among teachers in speaking of ability especially in academic work, there would always be suggested an evaluative sense. Even though, in particular, parents may
be unsure about why precisely a child is thought of as intelligent, they are pleased to hear this of their child.

This imitative usage is, of course, similar to the magical sense in that means are not appreciated, but, unlike this sense, is not tied to the appreciation of an end. All that is happening is that a generalised value stand is assumed. As a result of using 'intelligent' in this way all that could be done explicitly would be to be able to put 'intelligent' into a pro-category.

The concept of Intelligence as wider than the I.Q. metric

Sometimes when writers have talked about Creativity, they have tried to show that there is something specific about creative people which looks to be different from the display of intelligence. Ghiselin's1 collection of autobiographical sketches is enough to make the point.

This, however, I take to be a mistake. It is a mistake first of all because, as I have already shown, Creativity presupposes thinking, and all that 'intelligence' means is intelligent thinking. Secondly, because originality is necessary to a concept of creativity, the seeing of connections unseen by others is evidence enough of intelligent activity par excellence.

There may be two reasons for the mistake. On the one hand, many creative people have been evident in the field of Art, and here there has been a tendency to consider activities as removed from the standard performances within what have been accepted as 'intellectual' exercises,

where there seemed to be a clear link with intelligence. Such artistic activities would have been of the heart, whereas the intellectual would have been of the head. Because what such creative people did was singularly marked by originality, their work may have seemed to be generated by something other than normally human. To point to this, some of these creative people may not have had any success at intellectual pursuits.

On the other hand, since the early days of the testing of intelligence, there has been a tendency to see this as synonymous with an I.Q. metric; and so when it seemed that certain people were creative and had not done well on I.Q. Tests, obviously there was no tie-up between the concepts of intelligence and creativity.

However, in its design and in its conception the I.Q. metric has been narrow from the days of Binet. While it may be conceded that 'intelligence' meant 'thinking' when Binet began his investigations, the paradigm of this thinking lay squarely in what could be called the academic field. Now what constituted this was narrow, and amounted to no more than would have been instrumental to managing academically. This would include some mastery of one's mother tongue and some basic ability in Mathematics.

Actually, with regard to the academic there are two senses to the term, and the second sense is narrow. The work of the Academy has been to promote knowledge. One example of this work will illustrate both senses of the word.

The example concerns sorting out points on Grammar, which was an extremely difficult thing to do. The searching for patterns, say in  

parts of speech, how nouns varied in case in accordance with the overall
demand of the function of sentences, how verbal forms once discovered
could be systematised - all were matters of patient enquiry. This was
the job of the Academics, and it required not merely an understanding of
the various moves made in Language but also an ability to suggest
hypotheses to account both for regularities and irregularities. Once
the work had been done which "had been prepared for by generations of
curious enquiry and practical endeavour",¹ points concerning what a noun
was, how adjectives agreed with nouns in number, gender and case could
all have been memorised by pupils; and this very memorising was called
academic. Indeed, at a higher level than pure memorising, the fitting
of the various parts of speech into a whole would require a pupil to
identify categories, to see relationships between categories in an
intricate manner, and to try out possibilities so that other relation­
ships could be brought to light. Again, this is academic: but it
stops short of the kind of work performed by those who put Grammar on
the map.

So the difference is between a maker and a follower of a map.

Now drawing attention to the way 'academic' is used, is helpful in
so far as it illustrates the narrow aspect of an I.Q. Test. Here, all
the answers are known and there is little room for manoeuvre, and what
is more, no incentive exists for going outside of the map.

It could be replied that maps are like this. Actually, this is the
implicit reply of the formulators of the I.Q. Tests. There's a
relationship, they would say, between an apple and a pear which neither

bears to an umbrella. Again, if we are trying to find out how many books of a certain width of spine would fit into a bookshelf of a definite width, there will be one answer.

Now, while I could agree that to work out problems like this one would require intelligent activity, I would also want to maintain that eating when one is hungry would be intelligent. Any objection to this could be equally an objection to the working out of book-widths. For example, if it were very dangerous to eat under certain conditions, then in accordance with a value scheme of survival, eating would not be intelligent. Similarly, if working out book-widths was done at the expense of connecting oneself to a kidney machine, again in terms of survival, acting arithmetically would not constitute acting intelligently.

If now we bear the preceding points in mind, four major criticisms of an I.Q. concept of intelligence can be offered.

In the first instance, the Tests are evaluatively awry. It has already been shown that from the beginning there existed an implicit evaluation about pupils' ability or inability to cope with basic academic subjects, to wit, that such ability or inability would determine whether a pupil was or was not intelligent. An evaluation was therefore needed to get into the narrow academic sphere, but this was purely implicit: the rest was apparently descriptive. In other words, the psychologists were giving a plain matter-of-fact account of what pupils were intellectually, and possibly innately so: or at least, this seemed to be the case. Then, presumably to justify the position, it could have been held that the psychologists were only testing areas in Language and Mathematics - and some content was necessary. Further, all pupils had an opportunity to develop both. Clearly enough, from the point of view of the testers,
and indeed of those others who would refer to intelligent activity quite magically, there was no doubt that what was done was nothing but legitimate.

The next point is an objection based upon the distinction between map makers and map followers. Everything on the verbal I.Q. Test is clearly drawn out beforehand. Every answer is known. Now, certainly it may be part of the concept of intelligence that connections between categories are seen: further, that this aspect of the concept is evidenced by the kinds of questions asked in an I.Q. Test will show that it is also thought by testers that it is part of the concept of intelligence. Yet, while an individual will be considered intelligent if say he can see a connection in the following: 1, 4, 2, 5, 3, 6, 4, by suggesting the next number, he would be so much more intelligent if he could see connections unseen by others. Such possible connections are not considered in a verbal I.Q. Test, and it is for this reason that the charge of narrowness is brought.

Further, one of the most basic flaws in the case for aligning the concept of the I.Q. metric with the concept of intelligence is that if people are considered intelligent then they also have academic interests. There is a corollary to this, namely that those who have academic interests show themselves to be more intelligent than others in that they can operate in abstractions. Now, the general flaw can be seen in this way. If all the principles of intelligent performance had been worked out and embodied in a test, this would have helped, but clearly in accordance with my last paragraph this is not so. Seeing relationships between categories, for example, looks like a principle, which of course looms large in tests, but then, if the background of pupils has not incorporated a reasonably high level of expertise in language development, while it is possible that such pupils could see identical or similar
relationships in other areas of expertise, the mastery of principles will not be detected.

The actual seeing of relationships between categories can, of course, be fairly simple but it can be extremely complex. Examples of both kinds may be evidenced in the kind of test which assesses a particular level of I.Q., and this is to be expected. At a simple level where a testee is asked to pick out an item which is not in the same category as all the others, as in: hammer, apple, guavas, tomato, an identical grasping of the principle will be witnessed when someone pushes aside one particular food or commodity which is discrepant with regard to the category of 'like' or 'what is beneficial' or 'price'. Especially with reference to 'like' or say a particular texture which cannot easily be verbalised, there may be no resorting to linguistic or other graphically symbolic forms.

At a more complex level a testee may be asked to compare two lists in both of which there are as many as five items. The work here would be to determine which two items in one list had something in common with two items on the other list. Here it is very difficult to see into which category to put either possible combination. The difficulty in the situation lies in the actual holding in abeyance possible categories so as to compare them with another set of possible categories; yet if we consider the kind of operation which may be required on the football field, a similar principle may be evidenced. For example, the various combinations of the members of both teams may be such that not only must their relative positions to each other be taken into account but their comparative speed - and this in relation to their existing readiness for movement - and their ability to anticipate the possible movements of others.
Clearly there exists a high level of abstraction in the possible I.Q. example, but the level looks equally high in the other which is thought of as non-academic. It is here that the corollary, just mentioned, can be seen to be narrow as much as its main proposition is. The main pressure of the verbal I.Q. test lies not in considering the ability or lack of ability to engage in what is called 'abstract thinking' but in engaging in such thinking through an explicit system of symbols.

The fourth main criticism concerns the conjectures of transfer. An error creeps in when as a result of doing well on an I.Q. test, an award is made of 'intelligent' as if it were an overall ability where, especially with some of the background which psychology has, it becomes something of an innate faculty. Under this notion, if there were a possibility of acting intelligently this would be expected of someone with a high I.Q., and, of course, a correspondingly low performance would be expected of someone with a low I.Q.

Yet, this would pressurise us into giving an account of the performance of some people who at once score well on I.Q. tests and who seem to be silly in other areas. To overcome the apparent problem we can pre-judge the situation, for there is nothing else to do; and when, for example, we are faced with a situation in which the performances of those of low I.Q. seem to satisfy the criteria of intelligent performance, because we are so tied to a belief in the efficiency of the I.Q. metric, we attempt to reduce the performance to a knack or luck or instinct.

Of course it's a good predictor. We would expect that those who had shown ability in a specific field early in life would, on the whole, do well later. On the other hand, we would not expect others who had not done well early to do well later. In both cases, though, we realise
that these expectations are based upon merely general assumptions which we would make in any field because of our belief in such ideas as early training and development of expertise, and crucial learning periods; but in all, we know how wrong we can be.

In the I.Q. test and in other fields the positions are similar. However, this is overlooked, and, a great deal more is claimed for the I.Q. test. If more were legitimately claimed then what would be necessary would be to show that those who do quite well on the narrowly academic material also act quite intelligently in non-academic matters, and those who do not do well on I.Q. tests act correspondingly unintelligently in non-academic matters.

Principles of intelligent performance and the concept of Creativity

In the search for criteria of the concept of intelligence, I would like first to bring together the ideas which pinpoint the inadequacies of the I.Q. metric. This will highlight the principles upon which the deliberations about the concept can be made explicit.

First, if we look carefully at the background of the I.Q. metric, we can see that the meaning implicitly attributed to intelligence was evaluative. Secondly, as soon as we examine the growth of the I.Q. we can see that it has been used within a narrowly academic framework. The illegitimacy of this is clear because the move has omitted reference not only to the most significant point about the Academy but also to the meaning behind usage which itself has reflected that significant point, namely the seeing of connections unseen by others.

Looked at squarely, the story is this. If pupils are to manage to deal with the basics of the vast range of material already thought out,
then they will have to think on special lines. Such special thinking had a ready-made equivalent in the term 'intelligence'; but imperceptibly it had taken on a technical and narrow meaning.

Yet, if we simply look at what lay behind it, and of course, at the other activities of those who assumed that they were investigating the principles of intelligence, it can be seen that the meaning behind the usage was then and is now very similar to the meaning of 'bright', 'clever', 'perceptive' and 'quick'. However, the meaning of these cannot be restricted to ability in Language or Mathematics; nor can it be restricted to the seeing of connections which have been seen by others. No mandate exists for any such restrictions.

Now, the most difficult point in attempting to be precise about the concept of intelligence is that it is evaluative at every turn. I would like to illustrate the difficulty in this way. In so many examples where 'intelligent' is used, there is a clear indication that it is used in reference to ability to see relationships between categories. This is true of tests, verbal and non-verbal; it is true of Köhler's apes; it is true of an ordinary, everyday occurrence in catching a train. On the negative side, if this seeing of relationships is ignored, from testers of I.Q. to average people viewing, there is a strong tendency not merely to withdraw the award of 'intelligent' but to award 'unintelligent' or 'dull' or 'stupid'. From this, we could easily gather that this very seeing of relationships between categories is a necessary criterion of intelligence, and possibly sufficient. Yet, imagine for a moment two opposed value schemes; one a quasi-religious scheme and the other the Copernican system adopted by Galileo. He had clearly seen some connections which were important but was he the more intelligent in seeing the
connection between his safety and keeping quiet? Thus, in the seeing of connections between categories, what is also being evaluated is whether the particular categories should even be considered.

However, within this wholly evaluative framework, as has already been exemplified, it is clear that unless connections between categories are thought to be seen, no award of 'intelligent' is made. This seeing of connections between categories as a principle is supported not only in the work done on Intelligence testing and in ordinary usage but also etymologically. 'Intellego', even split up into its constituent parts, carries with it a notion of 'reading between' or 'choosing between' and this implies the seeing of connections between categories. The various English derivatives of 'intellego' (which is usually translated as 'I understand') like 'intellect', 'intelligentsia' and 'intelligible' all carry with them the idea of making connections. Even in the term 'intelligence' as used in the Forces, there is a clear indication that it relates to the accumulation of relevant information which could be helpful in the making of crucial connections.

So while this seeing of connections between categories is necessary, there is more to the concept of intelligence. What can be noticed about the work done by people like Köhler, Thorndike and Pavlov is that the idea of an end was presupposed. Actually, it may be objected here that such investigators only assumed an end, like satisfaction of needs: yet while the particular end was assumed, some end was presupposed. It is for this reason that the whole idea of means - ends has meaning, since it directs our attention to the goal-directedness of activity, that in fact, it is intentional. Thus to make intelligible why people or animals do things, some kind of end has to be accepted. Now, it is true
that the particular ends which some people set before themselves are hidden from us, and therefore any particular means which they adopt may be unintelligible to us, but in so far as we refuse to employ a concept of intelligence of their activities, we do so in accordance with a presupposition of an end. For example, quite often we assume that other people's ends are clear, and we may think that gaining advancement is such an end; and because of this we may then judge as unintelligent what these people do. Yet, this may not be their end. The mistake therefore is purely empirical. In so far as we judge, our judgement is made on principle.

At the moment, then, there are two points which are being held within the evaluative framework of the concept of intelligence. These are that connections between categories are seen, and that these are seen in relation to a particular end. However, as I have shown already, we do not always have to look outside of the particular activity in which someone is engaging in order to discover what his end is. The mere engaging in some activities is sufficient because they are seen as ends-in-themselves. Again, at this point there is an evaluation, for what can happen is that whether on occasion one should engage in activities as ends-in-themselves, or say be preparing for winter, no matter how intelligently the activities are conducted, is a matter of serious contemplation.

Actually, it would be useful to offer a caveat here because quite often the assessment of people's intelligent performance is done in a short-term way where any enquiry about aims is minimal, which means that the actual evaluation is extremely superficial. If another caveat is needed, it is that such an evaluation is sometimes made through media
in which people are not at ease, which of course makes it extremely difficult to determine. These two caveats insist upon the looking carefully at the principles upon which we are deciding in employing the concept of intelligence.

Certainly, then, there are two clear points which amount to principles for judging our own or other people's intelligent performance. This will not mean that we are right because we can easily be wrong about applying the principles. By way of illustration, we can look at a parallel in judging someone to be moral. Part of the meaning of 'moral' is the consideration of intention since if we are to say of anyone that he is kind or honest, which ideas come under the general heading of moral terms, then in so far as these terms are praising, then all is misplaced if intention is absent. Now, we may actually be wrong in our award because it may be shown that such a person could not have intended to do whatever it was; or it may be shown that we had not perceived the situation correctly. However, we could not make the moral judgement unless we presupposed intention. In a similar way do we use 'intelligent'. Unless we presuppose an end and unless we presuppose the seeing of connections between categories, there is no sense to be given to the usage of 'intelligent' and thus the concept has no application. 'Intelligence' is always employed within a context of looking at things which requires thinking of a special kind. Because thinking is done through concepts, then unless an individual is judged to be seeing these as in some way connected to an end, there is no possibility of the concept of intelligence having application.

Therefore, these two principles are presupposed in a concept of intelligence.
Of course, to give precise point to these principles some idea of speed is also built into them. Thus if it takes an individual weeks to decide upon an end, which for the sake of survival requires immediacy, then importantly he has not acted intelligently. An identical situation would arise if connections between categories were not seen fairly quickly.

Speed, though, may not always be very crucial. Some people may be a second or two speedier than others in seeing connections but the connections seen may not be important. Again, even if some people are speedier than others, and just as accurate, the others may still be thought of as intelligent. Speed, then, looks to be a second order principle.

Yet, as soon as this is said, a major difficulty is seen, because it now looks as if we have both necessary and sufficient conditions for the concept. Actually, if we examine any I.Q. Test, these look to be necessary and sufficient. So too do they appear to be under normal, everyday circumstances. Thus if the matter is one of selecting a train or planning a meal, no more is required - provided, of course, that evaluation is built into the concept.

But suppose existing known ends or known means are inappropriate (and this is evaluative), if someone were to suggest an alternative to either, wouldn't he be more intelligent than the others? An example could centre on a person taking a bucket to a well, but what of the person who could see the value of pipes and, say, of water finding its own level? The implication is that some people are very bright, very intelligent. They, in fact, see connections which no one else has seen.

Here, then, is the difficulty. When some people see connections
unseen by others, although I employ the concept of intelligence of them, I do not withdraw the award of 'intelligent' from others who have not seen such connections. All I do is to compare the two. The one who collects the bucket and the water is simply intelligent but the other is very intelligent.

So, an end, and the seeing of connections in relation to that end are presupposed to a concept of intelligence. Moreover, both principles have built into them some notion of speed. If now I say that together they are necessary and sufficient to acting intelligently (provided, of course, that the evaluation is borne in mind) mustn't I also say that there is never a need to suggest new categories? If so, how can I account for the idea of those who are intelligent par excellence?

The only possibility of accounting for this, and of overcoming the difficulty is by accepting two levels of intelligent performance under the concept. The higher level will be that embraced by a concept of creativity.

**Links between the concepts of Intelligence and Creativity**

The argument is then that it is possible to characterise as intelligent, and indeed very intelligent, those people who suggest new categories. Of course, this is not to say than any suggestion of new categories will be thought of as intelligent because some suggestions of new categories may be of an extremely low level. Thus, any novel suggestion will have to be evaluated.

Now, in any award which I may make I may merely imitate the awards of others. Again, I may magically make awards. However, if I am
genuinely to say that someone is creative I must accept that he has offered something original. If I do not accept this, there is no point whatever in my making use of a concept of creativity. In the offering of something original what was shown was that we were essentially concerned with praising human activity. In order to give point to this praising, a concept of thinking was presupposed.

In praising people for their original thinking we were singling out something special about their originality. We were not saying, for example, that anybody who offers an idea which comes from himself, as a source, is necessarily to be praised. However, neither were we saying that anyone at all who offers something original is by that token to be praised as creative, since some suggestions of new ideas have no value.

Similarly, it was not held that if anyone saw connections in reference to an end he was necessarily intelligent. Most certainly he would have to be seen as acting in this way, but the whole must be evaluated. Ends and means may singly or together be seen as inappropriate, in which case the award of 'intelligent' will not be made.

Now, in evaluating means and ends, we have in mind ideas like logical moves, useful ideas and sensible suggestions, and these ideas have application whether we are dealing with an I.Q. assessment or with looking at people's general behaviour. All these ideas finally amount to an enriching of understanding. It is this, then, that gives an account of the specific evaluation of the concept of intelligence.

Further, in so far as the seeing of original connections is concerned, it is only when this seeing is considered to enrich understanding that such original activity is praised. Here we employ a concept of creativity.
This must be so because we sometimes reject some of the work of otherwise accepted creative people as non-creative, and this would not be possible at all if every single thing that such a one did was thought of as creative. Again, among other people, however much they have acted as sources, and however much their ideas are new either to them or comparatively, or in the world, we may still reject all their offerings.

From this it can be seen that the concept of creativity makes use of a special sense of originality and a particular kind of originality. The special sense has always been that such an offering has not been seen previously in this way, and of course, this stresses that the notion of an individual originator must be from him, as a source. This in fact would be a clue to the evaluation which is evoked. If, however, it were claimed that 'original for the individual' could be an accepted sense, we could counter this by showing that the slowest learning of the most basic points amounts to doing something original for the individual. There would be nothing of significance here to compare with an Einstein or Shakespeare. Again, 'original within a group' could equally be at a low level.

Actually, because of the various senses of original, it is easy to see how a newer meaning has possibly been given to the concept of creativity. For example, because the primary meaning envisaged has been 'new in the world', the newer meaning has caught hold of the lack of precision in the overall idea of original, and has claimed that whether or not an idea is original in the world, it is none the less original. If, then, I say that the concept of creativity does not merely make use of a special sense of 'original' but also embraces a particular kind of originality, which kind is it?
To point directly to this, what is clear at the outset is that to be thought of as creative one must act in an original way. To do this, intelligent thinking is presupposed. With regard to the ordinary way of acting intelligently, what we are concerned with in our evaluation is that an individual sees relationships between categories with reference to an end. If it is thought that some people do not see such relationships, then they are not considered to be intelligent. Therefore, on this alone, if someone sees relationships not previously seen by others he is more intelligent in this respect.

So the point is that in seeing connections with reference to an end we are operating in an area where it is possible for us to be thought of as intelligent. Moreover, if speed is important this will operate as a second order principle. Yet, what finally counts and necessarily counts is the evaluation, and it certainly seems that this evaluation is based upon the idea of enrichment of understanding. Following this, when we are concerned about the seeing of original connections, then unless such a seeing enriches understanding, there is no awarding of 'creative'.

It is conceivable that an individual offers some idea which a few other limited people think is original and intelligent, whereupon they consider the individual to be creative. He may consider it creative himself, because 'new' for him is synonymous with 'new in the world'. If, as another example, someone after years of effort finally distinguishes between two letters of the alphabet, then he has done something new for himself, which may actually impress others slightly more limited. Yet the level of enrichment is low.

Now, those people thought of as creative are those who have stood out, and in this sense they were not ordinary. It is for this reason
that comparatively few have been thought of in this way, which of course indicates that the primary sense of 'original in the world' is intended.

The specific evaluation within a concept of creativity is one which is evaluative of a certain level of intelligent performance. This will be shown to have validity when I consider in more detail the evaluative aspects of the concept of creativity.

Conclusion

Within some scheme of evaluation, to see connections between categories is judged to be a matter of intelligent behaviour. Whenever the concept of intelligence is employed, presupposing some end which in some way can be seen as having some value, is part of the concept.

To establish that there are levels we shall have to accept that to see certain connections is comparatively easy whereas to see others is difficult. This, anyhow, can be exemplified by looking at the kinds of insight required in the I.Q. set-up. The situation faced may only require us to recognise whether or not a particular item belongs in a particular category. On the other hand, we may be faced with a situation which is more complex in the number of items and the various inter-relationships which exist. If the mode of doing something can be estimated in this way, then the idea of levels is important.

Now, in everyday living, to operate at a high level is important, but what we can notice is that a member of a family or a company may suggest an idea which has not been current in family or company affairs. Perhaps others knew of the idea but had not seen its connection in these matters. The bringing forward of such an idea not normally in vogue
within one domain would certainly be an act of seeing connections between categories. If, then, this idea is relevant and it would have to be seen as relevant to be called intelligent, then this is a connection not previously noticed by others. This looks to be at a higher level of performing than has been attained by others.

So, if seeing connections is necessary to the concept of intelligence, the seeing of more difficult connections will be at a higher level. Normally, within any field, there are standard ways of operating, however complex some of these ways may be. In order to be able to grasp some of them, one may need to act very intelligently, but to pick up an already existing idea not normally associated with the field of operating will be to go one step further.

Utilising an idea like this may enable people to see more connections, and it is for this reason that greater praise is bestowed upon the one who has brought about the seeing of more connections.

Furthermore, what can also happen is that not only are already existing ideas brought over to another field whereupon this can be looked at in a new light, but ideas never before existing may be suggested. Clearly, this is also intelligent activity.

In considering these two ways of acting intelligently, there is a difficulty in determining whether the second is necessarily more intelligent than the other. The proposal which suggests that this is so appears like this. Köhler's apes operated intelligently in employing sticks as tools but if the sticks had not been visibly available, they would not have been able to make the connection. If this is true, then an ordinary level of acting intelligently would be where clues are visible, a higher
level would be where the clues are not visible but have existence somewhere, and higher than this, where there are no clues at all in existence. Put in this way, the proposal has some persuasiveness.

Yet, it may be a proposal which has not been worked out in either a concept of creativity or intelligence. What may be important, within a concept of creativity, is that whether the idea is new completely or is already in some way existing in another field, the set-up which is being offered is new and moreover, in both cases the connections seen are previously unseen by others. As regards intelligent performance, if the idea is extant, then in linking this to another field an individual is acting on his own, as a source, and the connection which he makes is new; on the other hand, if the idea is completely new in the world, then the act of seeing it is intelligent because here it is not a matter of inventing plus a seeing of connections. The very inventing is a seeing of connections. Unless a connection had been seen, no inventing could have taken place.

At the moment, then, while a case is made for claiming that the seeing of more difficult connections previously unseen by others is to act, in that enterprise, more intelligently than others, it cannot be maintained that one of these ways of seeing such connections is more intelligent than the other.

Further, it must be made clear that because an individual does see such connections previously unseen by others, this in no sense renders him more intelligent in every way. All that is being held is that, in that enterprise, he is more intelligent.

Finally, what follows from this is that the concept of creativity is now being characterised as a high level of intelligent acting.
CHAPTER 5

The concept of Creativity:
its evaluative aspects

Introduction

In making the principles of the concept of intelligence explicit, the following has become clear. If people are thought to see connections between categories, and such connections are considered to be fruitful in reaching ends which are accepted as valuable, then they will be evaluated as intelligent. Because of these points, as synonyms of 'intelligent', we employ 'sharp' and 'shrewd'. However, if two people act identically, but one is quicker than the other, he will be considered to be the more intelligent. In fact, 'quick' functions also as a synonym of 'intelligent'.

Moreover, in attempting to become clear about the concept of creativity, two points have been maintained which gave rise to a consideration of a concept of intelligent thinking. One was that some kind of originality was a necessary criterion of the concept of creativity. The other was that creativity was a concept, evaluative of human activity. Because of these two points a concept of intelligence was presupposed in a concept of creativity.

Now, it may seem, at first sight, that it is a factual matter whether a person's thinking is original or not since it is checkable. What, however, is important to investigate is the kind of originality which is thought to be valuable. This is so because not all original thinking is considered praiseworthy.

Clearly, then, the whole conceptual area is evaluative, but what
we are committed to in saying this needs some investigation. There are two ideas here. First, we must be concerned with an evaluator. To illustrate this idea, we may see that even the bombing of others has been considered intelligent. Again, when some people looked at Socrates in his death-cell, they could not see that what he was doing was intelligent since they were unable to value the ends he had chosen. Secondly, what is also crucial is that we must be concerned about what is evaluated. The answer, of course, lies within the ideas which have already been suggested, but they stand in need of some demonstration. That answer can be introduced in this way.

In estimating ends as appropriate, and in considering means as fruitful, we are ruling out the dull and bringing in the bright. Here, for the purpose of exposition we mean by intelligent performance that there is some enriching of understanding. Now, at one level of intelligent performance there is no need to suggest original connections between categories. Yet, if original connections are suggested, and these are thought to be valuable, the reason is that they enrich understanding, par excellence. It is for this reason that people are thought of as creative.

To get to that answer, the two ideas concerning an evaluator and concerning what precisely is evaluated will have to be scrutinised; but even before this, because there have been certain confusions about the evaluative nature of the concept of creativity, these must first be considered.

'Creative' - a linguistic caveat

That the concept of creativity is evaluative may not at first sight
appear clear. If we deal with the concepts of the good or the pleasant, even without any contextual appeal, there is an air of evaluation about them which is immediate. Many adjectives and their corresponding verbs are always used evaluatively - some to praise and others to condemn, and the normal expectation is that the evaluation, positive or negative, applies throughout the various parts of speech. Positively, 'to sympathise' carries its evaluation through to 'sympathetic' and 'sympathy'; negatively, 'to steal' passes to 'stolen' and 'stealing'.

Now, some verbs are quite open, yet this does not mean that the corresponding adjectives are open, and this makes for some confusion. 'To imagine' is in this group. We can imagine as a result of being directed; we can imagine good or bad things. On the other hand, if 'imaginative' is used, there is no sense here of being directed, but rather some notion of freedom and self-initiated activity are being considered. All examples of being imaginative are also examples of those who have imagined, but not all those who have imagined are imaginative. To be imaginative is to be thought highly of, and is thus evaluative. 'To invent' is similar. All kinds of stupid things may be invented: an invention may be worthless, but to be inventive carries considerable value. Again similarly, though even more strongly is 'creative'. The verb 'to create' is no more than to make, and this is wide enough to cover evil and good, worthwhile and worthless, innocuous and humdrum. 'Creation' is wide enough to include as much as its verbal counterpart. Yet, as soon as we pass to 'creative' we can never pass in a straightforward, logical way from verb to adjective. To think that we can do so is to make an assumption, as much as Mill's in passing from what is desired to what is desirable.

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A reason for overlooking the evaluation

All that has been said so far points clearly to the concept of creativity as evaluative. This can now be made more definite by considering some ideas connected with its historic roots which set the scene for current usage.

There are two historic strands which are linked. The first strand sees the concept of creativity as based upon the idea of God's creation, and the second sees this creation as good. These strands have some foundation as the following four indications suggest.

First of all, the very strength of the idea of creation as given in Genesis would have been the groundwork of reading or hearing of countless people for many centuries. There would have been no doubt about the reference if anyone talked of creation or the creator, because God was seen as the model of all that was created. In fact, the idea that we are all creatures brings out the belief system which has permeated the tradition. Moreover, what was created was seen as good. It is surprising how many times its goodness is mentioned in Genesis, as if the goodness of it utterly imbued everything, and needed emphasis.

Secondly, while it is true that 'to create' could have been rendered by 'to make', the words themselves which spoke of God's creation were, for a long time, kept apart and not used of profane matters. In all the early usages of 'create', references are actually made to God, and there are no contrary examples. 1 A direct move to 'creative' appears

later in Cudworth who talks of "this divine, miraculous creative power",
and of course here the reference is strictly deistic.

Thirdly, a movement can be detected which at one point picks
out what is thought to be central to God's creation, namely originality
and value, and here the verb is applied generally. An example of this
is, 'the mason makes, the architect creates'. What looks to be
pressed for is that although the mason imposes some form on material,
the architect, as it were, works on nothing. He brings out ideas from
nothing.

The movement at another point picks out for the verb one aspect of
what is central to creation, and that is originality. For example,
there is a reference in 1592 where it was used of bringing into legal
existence, and Fortescue in 1460 used it of ranks. By the time
Johnson offered his definition of 'create', we find that it is more or
less what would be given today. Here, then, is where we can begin to
see a separation of the verbal and adjectival forms: 'creation' because
of its width of application has begun to lose its former tie with value,
whereas 'creative' has kept this tie with value.

Fourthly, there is a romantic view of the poet who has looked to be
God-like, who operates on ideas and not on things, born not made. He
is the one who, like God, genuinely creates, and because of this likeness,
what he offers is good. Thus he is creative. This presumably
is what Shelley has in mind when he declares: "There is no one in the
world who deserves the name of Creator but God and the Poet".

2. ibid.
3. ibid.
4. ibid.
5. ibid. Johnson's definition is: "to bring into being, cause to
exist, especially to produce where nothing was before, to
form out of nothing".
From these indications it is clear that the model from which the concept of creativity stems is God's creation. Historically, all the references of usage throughout the forms of 'to create' are to God, but gradually the central points about God's creation, namely originality and value, have been applied more widely. In course of time, 'to create' and 'creation' have come to be applied without the idea of value being accorded, and yet 'creative' has always been applied not only of originality but also of value.

An explanation of the introduction of the term 'creativity' as a noun corresponding to 'creative' could be this. Because, although derived from 'creation', 'creative' gradually moved away from being merely its adjectival form, there then existed an idea without a name. At the time when 'creation' and 'create' still referred to God, 'creative' was the appropriate adjective, but when 'creation' and 'create' were employed without necessarily implying any attributing of value, then clearly, because 'creative' was reserved for what was not only original but also praised, 'creative' was no longer the appropriate adjective. Thus an idea of what pertained to 'creative' was only to be rendered by 'creativity' or 'creativeness'.

This movement of language is important to notice because if ignored, an evaluation can be overlooked. In a similar way, we can see that the explanation which I have given applies to the idea of inventing where 'inventive', because no longer corresponding directly to 'invention', requires the noun 'inventiveness' to cater for what 'inventive' suggests.

1. In fact, 'creativeness' was used by Hunt in 1820 whereas the first mention of 'creativity' is in 1875, where the reference is, "The spontaneous flow of his (Shakespeare's) poetic creativity".
It is now easy enough to see the implicit value assigned to the concept of creativity but there are two points about the concept which can be noted in recent writing, which have not contributed to clarity. First, that the concept is evaluative has not been made explicit. For example, Guilford talks about reducing boredom.\(^1\) Getzels and Jackson speak of "dealing inventively with verbal and numerical symbols and with object/space relations",\(^2\) and Torrance continually urges respect for what the pupil offers in terms of his unusual ideas.\(^3\) Obviously here and elsewhere writers have in mind that what they are talking of is evaluative but this is not brought out at all.

It is true of course that some writers have expressed ideas about the concept of creativity in fairly explicit terms, but, and this is the second point, here there is no pressing for an explicit account of what we are committed to in holding that the concept is evaluative. For example, Barron claims that "a new form must correspond to some extent, or be adaptive to, reality".\(^4\) Yet, what is real? Apart from wondering what 'reality' could mean, there is a sense in which what is real to us can only be appreciated if we have a sufficiency of conceptual schemes for interpreting what appears to be. In accordance with our values we may see Drama as unreal or real, or Picasso's paintings as unreal or real. Here, then, the evaluative aspect of the concept is presented and yet it is so formulated as to put us off the scent.

Again, when Hudson holds that the true connotation of 'creative' covers the most able and intellectually productive,\(^5\) his idea is quite

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explicitly evaluative but we are still faced with the problem of the rationale for deciding who is the most able and intellectually productive. The methodology is similar to that of a moral philosophy which keeps holding that to be virtuous is best, which is clearly evaluative, but failing to show that this is any more than a statement of what is so. It is evaluative but it is hardly noticed.

Certainly these two tendencies, either of assuming value or of stating but not explicating value, have lulled us into a vague acceptance of inherent value which has appeared sufficient because it has linked up with former usage.

Apart from the literature, comparatively unsophisticated usage has remained implicitly evaluative. What, for example, is looked for in a creative salesman is his ability to sell well. To do this, there is expected an ability to offer some new ideas, but these ideas are praised in so far as they are effective in the selling programmes. The same idea is applied in the case of a creative footballer. If he simply offers new techniques but in no way do these promote the object of the game, he is not thought of as creative.

Now, there is another area of usage which does actually present some difficulty, but nonetheless is evaluative. This is where 'creative' is applied to very young children, where what is actually offered by them does not look to be worthy of any praise. On the face of it, the idea is this. These children have acted originally and because they have acted originally they are worthy of praise.

Until this point of usage the concept of creativity has functioned first by its necessary reference to originality and secondly by its evaluation of what is original. For so long we have been saying that
to be creative, what one offers must be original and good, but here it looks as if we are saying that to be creative, what one offers must be original and this is good. Several confusions will have to be cleared up, but now it is sufficient to say that while this may be a general implicit viewpoint, it is not even maintained by its protagonists in a consistent way since there are some areas of activity where any such originality would be condemned. Clearly, however, the implicit viewpoint is evaluative.

A consideration of some confusions.

If we take note of this background, it does seem odd that any confusions could have actually arisen about the evaluative nature of the concept of creativity. One possible reason is that the background has been ignored. Another reason is that the literature, on the whole, has merely accepted the evaluation, and has done little to promote any explicit account. For whichever reason, there has been some fairly recent writing which illustrates two confusions.

The writing stems from Olford who has attempted "to argue that the concept of creation functions primarily in the appreciation and evaluation of finished products, of many sorts, and whatever the kind of completion involved".¹ Along with 'creative', the terms 'creation' and 'create' have been used but the actual functioning of the terms which would enable us to see which concepts were being referred to, should have been clearly demonstrated.

In the first instance, while the concept of creation as used of God

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was evaluative, there has since been a considerable shift of meaning.
The extent of the shift has been to allow for a possibility of an
exclusion of any evaluation. Now, once something has been created, while
clearly this is a creation, it is not necessarily creative. The reason,
of course, is that there is no direct move which can be made from the
verb or noun to the adjective.

The normal expectation is that an adjective will correspond to
its verbal counterpart. However, this expectation should be checked.
If it had been checked, then talk of the functioning of the concept of
creation would not have been confused with talk of the functioning of
the concept of creativity.

Because of a lack of discrimination Mr. Elliott has been able to
state, in reply, that "the concept of creation is not primarily evalua-
tive, but descriptive". To support his position Elliott cites the
ideas of different usages of the verb 'to create', mentioning that God
created the world, Olivier a part, Tom a disturbance. In all cases it
certainly looks as if there is a describing rather than an evaluating of
certain situations. These very examples were used earlier by Olford
3 to argue that because the verb 'to create' was employed in all three
eamples, we could not infer that the same sort of activity was at stake
in each example. In this Olford was right, but not for the reason which
he suggests. His suggestion is that the same verb is used because all
the examples show that the subjects achieved what they set out to do and
were answerable for what they did.

1. Elliott, R.K., 'The Concept of Creativity, Reply to John E. Olford',
Proceedings of the Philosophy of Education Soc. of Gt. Britain,
op. cit., p. 98.
4. ibid., p. 65
5. ibid.
The Latin origin of the word only means 'to make' and the usages of this verb are wide and varied. We may well say that 'God made the world' or 'a man made a face' or 'someone will make the beds' but unless seen in context, we may miss an essential point. Olford, in attempting to decide what the various contexts could imply, has ignored the essential point of evaluation but instead has brought in a point concerned with the achievement sense of the verb 'to create'.

What he could have done, based upon what I have already shown, was this. By comparing the examples of 'God created the world' with 'Tom created a disturbance' he could have shown that what they had in common was the bringing about of something not previously in existence. This would have been an appropriate move because this at least runs through the usages of all the derivatives of the verb 'to create'. Then he could have seen that while 'to create' and 'creation' have been used widely, covering both descriptive and evaluative ideas, 'creative' has only been used evaluatively.

The other confusion arises from the same source. First, it is clear that Olford wishes to hold that creativity is an evaluative concept. It is true that Elliott does too. Olford, for example, claims that "when we speak of a 'creative product' we locate it as a product within some field of human activity . . . it is creative with respect to novel and valued features". Elliott speaks of a work as needing "soul, spirit or life", and here he is speaking of creativity.

However, because of not seeing in which way the concept is evaluative, both writers have been drawn into considering products. Olford talks

1. Olford, J.E., op. cit., p. 85
2. ibid., p. 80.
a great deal about the idea of a product, saying that it is "creative with respect to novel and valued features" and that it "cannot be new in all respects". Elliott, in a similar vein, refers to Olford’s view that many beautiful works which have been created but have not embodied a new standard cannot be thought of as creative products. Here, Elliott still operating on the idea of products, attempts to indicate that even though a work does not embody a new standard, it can still be thought of as creative.

It bears repeating, with reference to this confusion, that any work is merely evidence for the award of 'creative'. A work may indeed have aesthetic merit but it will not follow that it is creative. Actually, pressing the idea of products has looked as if any distinction between the aesthetic and the creative has simply been overlooked. Because creativity is a concept of evaluation of human activity, two points follow concerning products. First, a product is needed if we are to learn how to use 'creative' since if nothing were ever externalised we would have no means of identifying what was meant. Secondly, some kind of product would be necessary if we were to be able to hold that other people were creative. However, once we were aware, even implicitly, what was meant by the concept, we could then use it privately just as we could use 'moral'.

Moreover, whenever the concept is invoked, we have in mind what people do. It is not a matter of having in mind what is made or created, however unusual or however beautiful. It was indeed for this reason that a concept of thinking was shown to be necessarily included in a concept of creativity.

1. Olford, J.E., op. cit., p. 80
2. Olford, J.E., op. cit., p. 81.
As a result of noting these confusions there is one point which is crucial. The concept has always been evaluative: it has always been evaluative of some intelligent activity. However, if it is evaluative, it must be dependent upon the idea of someone doing the valuing.

Thus, just like the concept of 'good' or of 'moral' or any other evaluative concept, account must necessarily be taken of the evaluation. Someone may tell me that a particular play is good, and while I know what he means by 'good', I may not think of it as good. He may tell me that it is possible to inflict pain on others intentionally and thereby to act morally, and although I know what he means by 'moral' I may still disagree with his evaluation. Similarly, I may be told that a particular writer is creative, and even though we have reached agreement about the criteria of the concept of creativity, I may still disagree about the evaluation.

It is this evaluation of human activity which requires investigation, and which is ignored in directing attention too much to products.

How the evaluation can be overlooked

De Bono presents us with the example of a writer who has failed to acknowledge that the concept of creativity functions evaluatively. His main concern is with what he calls lateral thinking, but this is functioning in a textbook on Creativity, and for this reason has the appearance of guiding us. This then needs to be put into perspective.

First, he accepts that lateral thinking "is closely related to insight, creativity and humour",¹ but what distinguishes it from the other three is that it is a deliberate process. The others can only be

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prayed for. He also, secondly, mentions that creative thinking has generative qualities, but there is no way of bringing it about.

Now because of an expectation of guidance, it seems initially odd that this creativity which he speaks of, cannot come about through our efforts. This oddity, though, is removed in the same breath by his claim that lateral thinking is a process of using information to bring about creativity. On the face of it, he appears to be saying that creativity can and can not be brought about, and this needs to be explained because at the very least it is paradoxical.

One way of explaining it is like this. Most of us cannot lift an object which weighs a ton, but here is a technique for bringing about the lifting, namely a crane. There is, then, an analogy between this technique and lateral thinking, which De Bono thinks of as a process. Now, we can pray for strength to lift without a crane. Conceptually, on this analogy, creativity would equal strength. Therefore, though we would not increase in strength, we would increase in mastery of techniques which would do what strength does.

Lateral thinking looks to be a functioning as a means to creativity; yet side by side with this view is another, which when explicated looks to equate lateral thinking with creativity. For example, De Bono claims that "lateral thinking involves restructuring, escape and provocation of new patterns". Yet, in the previous sentence he has held that "Creativity also involves restructuring but with more emphasis on the escape from restricting patterns". From these declarations, creativity looks as if it is only noted as being different from lateral thinking in

2. ibid., p. 7
3. ibid., p. 11
4. ibid.
the degree in which escape from restricting patterns is concerned. However, here use is not made of an implicit analogy where I have suggested that creativity would equal strength, and lateral thinking a technique for bringing about what strength does. What is now being said is that what applies to creativity, more or less applies to lateral thinking. So close are they, in this account, that what one may call 'creative' another may call 'lateral thinking'. For example, if someone has restructured an aspect of looking at things, he must have escaped from some restricting patterns, and his very restructuring must provoke new patterns. On De Bono's account, we would think of him as a lateral thinker. Yet, if I say that he is creative because by the very act of restructuring he has notably escaped from restricting patterns and provoked new ones, do I say this merely because I am emphasising the escape? There is, from what De Bono says, a necessary emphasis on escape by the act of restructuring.

Lateral thinking, on this, is another name for creativity. What, though, is wholly significant is that De Bono holds that lateral thinking is a process, and functions as a description of a process. This is wholly to miss the point.

By looking at De Bono, we can see how first the background usage of 'creative' has been overlooked; and secondly how in the midst of what purports to be a description he is able to employ an idea like 'restructuring', which rests upon some value stand. It is because of both reasons that a closer look at values should be made.

1. De Bono, E., op. cit., p. 11.
The need for an explicit statement about values

Two points come to mind in looking at specific accounts of confusion, and the overlooking of the evaluative component of the concept of creativity.

First, there can be a lack of explicitness about what we are actually holding. Because of this, even when we say, for example, that smoking is good, and helping other people is good, we may be unsure about the particular value which we are attributing to either. Again, we may not have distinguished between instrumental good and good-in-itself. In both cases what precisely we are committed to in saying that something is good remains unclear.

Secondly, this lack of explicitness is even more noticeable and important when we employ concepts which do not have an immediate evaluative ring in the terms which are used. For example, morality is like this. The concept would probably conjure up ideas of doing right, and for so long it may be said, everyone more or less knew what was right because it was made manifest in the Koran or the Bible, or was stated by the elders. Yet, as soon as the concept was openly investigated and criteria for its usage established, the evaluative aspect of the concept gradually became clear.

Now, while the concept of creativity has been shown to be evaluative, like the concept of morality, it may not immediately appear evaluative in the way that 'pleasant' and 'good' may.

In order to see clearly the kind of evaluation that the concept of creativity is, and also to see how it functions, it would be useful first to look at the way in which values are normally thought to operate.
Some basic points about values

One way of doing things may appear valuable to one person or
group but not to others. Certainly, in time of war, the bombing of a
town will appear good to one group and bad to another. Again,
mountains can appear ugly to one generation and lovely to another. In
each case the factual account of what there is to be observed is identical
but how it is viewed depends upon how it is valued. This much is true.
Thus, in one sense when something is said to be valuable, the value
looks to be residing in us and not in the thing.

However, there looks also to be a sense in which things have a
value-in-themselves, independently of our particular estimate. A
similar idea exists when we say that whether an individual is aware of
it or not, seven sevens are forty-nine. Actually, if there were not
ideas and things which had intrinsic value, there would be no particular
reason why anyone should suggest that initiation into certain forms of
activity was preferable to initiation into other forms. Of course, as
an objection it can be said that all that is being suggested is that
there is some kind of general agreement about which things tend to
produce in people more subjective pleasure. Thus, we are still concerned
with a subjective evaluation.

Yet, even though this might be the case, the argument still remains
that there is something special about some activities or some things,
that these rather than others are likely to bring about in an evaluator
a higher level of value.

Because of this background, values have been divided into three
main areas, namely subjective, relative and objective.
It is likely that we often hold to subjective or relative values which, when we are pressed, we find hard to justify because in attempting to argue any position we presuppose rationality which necessarily commits us to a search for objective values.

However, there are two points which need to be appreciated if we are to see some kind of consistent pattern in the way a concept of creativity functions. First, whether what is thought good really is good becomes a matter of seeing what justification exists for the various value-judgements which are made. Secondly, whether or not an evaluator is justified in the judgements which he makes, some meaning may still be attachable to his judgements.

If we had only to deal with objective values, the task of seeing the functioning of the concept of creativity would be comparatively easy. We would then merely have to take account of the various reasons given and see them in the light of the context in which they were offered. Thus, at any point in time, even though there would have been a searching for reasons for claiming that someone was or was not creative, because of a lack of understanding, a lack of information or a lack of clarity about explicit meaning, one person who was evaluated positively or negatively might later have the evaluation reversed of him.

Nevertheless, not only for the sake of justification but also for the sake of meaning, we must take cognizance of both subjective and relative values. What will be noticed here, though, is that this normal division of values throws up discrepancies which then need further investigation. For example, if I hold values which are commonly held by members of my ethnic group, like detesting foreigners, then this would be an example of a relative value. However, I may hold, in common with
members of another group, that I should do good to all people. Now, while I clearly hold this as a relative value, and as evidence, if I am asked why I do this in the face of open nastiness on the part of some people, I merely reply that this is what we do in our set; nonetheless, it can be a position which can be argued for in an objective way.

The same sort of discrepancy may be witnessed with subjective values. As an example I may place great value on staring at trees. Later in life I may even wonder what value I could ever have seen in this. On the other hand, another example of a subjective value may be in some ways quite different. An example of this would be the value which a person places on truth-telling. It may actually be suggested to him that telling the truth may, on occasion, hurt someone or cause himself trouble, but still he pursues the same path. Moreover, he does not claim that others should abide by this value. He simply values it himself.

Now while many people would not agree with his utter acceptance of truth-telling, as a principle truth-telling can be defended on rational grounds.

So, subjective, relative and objective values inform us of the manner in which values are held. However, what can make a considerable difference is whether, although no valid reasons are advanced by those holding subjective or relative values, it is still possible to defend them objectively.

Now, this distinction is important. If a subjective value is held, then at one point in time a rational defence of it may be made, but because it is necessarily held without reference to reasons being adduced, any reasons advanced because of new light being shed on the value will
make no difference to the holding of the particular value. Here, then, one person may hold a specific value subjectively but another person may hold the identical value objectively.

Implications of how values are held

A normal objection to a subjective value is that it is a purely individual way of looking at things and is therefore narrow; but it need not be so. It may be quite inclusive of the values of others, and the same is true of relative values. Sometimes we are pleasantly surprised by the welcome which a people offers to us where they simply like visitors. An individual too may be utterly tolerant of our views, and give a complete impression of being objective. The main difficulty arises when the reasons no longer apply. Then the discrepancy is noticeable.

An example will make the point clear. There could be, at one point in time, good reasons for holding that learning things by heart stays and can be used later. Now this idea could be held quite subjectively; it could have been picked up and become an idea that I like. Thus when I do my teaching I simply keep to this idea closely. Later, various reasons are brought forward, based possibly on psychological and sociological research - ideas connected with 'inert' ideas - for not continuing with an utter learning of things by heart. Now, if the value is held subjectively, it is to be supposed that the identical value will continue to be held, since anyhow the value has never been rationally founded.

When, therefore, we come to invoke the concept of creativity, because this already includes the other concepts of intelligence and
originality, the difficulties are similar yet more profound. I shall try to explain the reasons for this.

It looks as if there are some concepts, like 'good' and 'pleasant' which are simple but others which are much more complex, where two or more criteria are necessary to the concept. An example would be the concept of morality. Here, if it were claimed that someone did something intentionally, it would not follow that he was moral. A similar situation exists with the concept of creativity. In wondering whether someone is creative, we may agree that originality and intelligence are necessary and so there will be objective linguistic points where we could find some agreement. Yet, we may still disagree about the value concerning originality and intelligence which we are attributing to the person whom we are appraising. We may agree about how 'intelligence' should be used as getting to a goal in considering means but there can still be disagreement about the ends and the means. Both the means and the ends which are selected, the particular form of originality may all fit into a framework of finally subjective values; but whether they are subjective or not, what matters in one important sense is whether or not they include the values of other people, and particularly of the one whom we are judging. The reason why I claim that this is important is because whether the values which are being held are subjective or not, relative or not, there is still a possibility of acknowledging the values of another if one's own values are inclusive. If one's own values are inclusive of another's who may have good reasons for holding his values, there can be an agreement in the awards which are made, although it must be admitted that this agreement may be finally superficial. This returns us to the point where it was held that although one may hold values subjectively there may still be reasons for the holding of these values
which we either have no cognizance of or care nothing for, or both. So while subjective or relative values tell us about the manner in which values are held, whether these include the values of other people or exclude them is an important consideration in seeing precisely the implications of holding values. This idea of inclusive and exclusive value schemes points to a clarification of the various superficial agreements and the various discrepancies which often appear in judgements. Thus, if schemes are inclusive, they can be looked upon by others as objective, and then the discrepancies will not show unless or until the reasons for holding these no longer have force.

Those who formerly held values subjectively may continue to call 'good' what cannot be defended rationally, and still call 'creative' those people who cannot now be judged to be creative on rational grounds.

Obviously, then, there are considerable discrepancies when we come to look at various concepts, like 'good' and 'pleasant' which are simple, but there are even greater difficulties when the concept is complex, as is the case with creativity. To illustrate this, because this concept will include the other concepts of intelligence and originality, while we may be in complete agreement about the linguistic points concerning meaning, we may still show grave disagreement about the various values which, say, the concept of intelligence covers. It can be seen from what has been said that there are difficulties enough with concepts like 'good' and 'pleasant', which are fairly straightforward but there are greater difficulties with complex concepts, like that of creativity.

One example will show this very well. This concerns the concept of intelligence which is embraced by the concept of creativity. In Roman times, the idea of using slaves was considered right and proper but later,
because of changing attitudes, probably brought about mostly by
Christian ideas, the idea of using slaves became anathema. However, if
under Roman ideas, it was considered that by using slaves other people
would be enabled to produce works of art or engage in other activities
considered to be worthwhile, then the selection of the means, namely
using slaves, would have been considered good. To people of later
generations the idea of using slaves would have been bad whatever the
results. Now, in awarding 'intelligent' to activities, if the whole
idea of the means are considered to be bad, there is a possibility that
no award which is positively evaluative can be awarded. This possibility
can be considered in two ways.

First of all, if we adopt a purely subjective value scheme, we
may actually include or exclude the values of others which may well be
rational. Therefore, if we detest particular means, then there is
nothing else to be considered than our subjective value scheme. Thus
logically we shall also refuse to award anything positively evaluative
of the activity. Secondly, on the other hand, it may be said that
although we detest the means, because we are attempting to be rational we
may still be able to see in what people do some kind of value. In this
case, it is not so much that our values are inclusive or exclusive but
that we are attempting to be rational. The following will exemplify
this. Suppose someone has devised a scheme for our downfall. His
moves may be stealthy, to the point, highly original, sophisticated and
utterly efficient. If, as is likely, our dominant value scheme at the
time is security, we shall find it extremely difficult to see these points.
A similar situation would have arisen with the Great Train Robbery. If
a person is able to include the values of others within his own scheme,
even though he has suffered under them, then he will be able to isolate the value of the activity as possibly intelligent and as possibly creative. Then, we may say that an activity is intelligent or creative even though its effects inveigh against us. The possibility of so isolating a consideration of an activity from its ill-effects upon us is an objective exercise but this consideration now looks as if we have to say that while we may have to acknowledge that a certain activity is intelligent or creative, it ought not to be pursued. So, under a rational scheme, we can detest the means but still see some kind of value in them. On the other hand, if we were committed to an exclusive value scheme which was purely subjective, then we would necessarily refuse to make any kind of positively evaluative award.

This, therefore, will mean that the concept of creativity will be more difficult to demarcate because of its lack of simplicity. Embracing, as it does, the idea of intelligent performance, the means and the particular ends which have to be evaluated in order to discover whether an activity is intelligent, may well be subjectively or relatively determined but these may at any time include the values of others who are attempting to be rational. It is only when we can discover whether or not adequate reasons are being adduced for the values which are being held that we can tell whether the particular values are merely subjective or relative.

Thus, to illustrate the idea of the various discrepancies which may exist between people's awards and which therefore make us wonder about the concepts which are being employed, we can look at this example. At a point where Galileo seemed to be departing from accepted norms of belief, whatever he did was objectionable. Now some of those people who objected may have had some sound reasons whereas others merely had subjective ideas about him. Later, when values changed, and good reasons
could be offered for the position which Galileo was adopting, rational people could then begin to see that he could be thought of as creative, whereas others, even in the light of these new reasons, would still keep to their former views. Formerly, there would have been no distinction at all between their expression of values, and it would have seemed as if their concepts and the various awards made under the concepts were identical, but the discrepancy would show when later it could be seen that certain people kept to their former values without any reference to the new reasons which were being advanced.

Originality and value

The concept of creativity has looked as if it has picked out certain criteria which have been evaluated. It has been held that originality is part of this concept, and in claiming this, in the major usages of 'creative' it has been maintained that originality was necessary, but it has also been maintained that such originality had to be good. However, there has been one recent usage which has caused some difficulty.

Clearly, when it is said that children are creative, and the implied meaning is that they are original, the main worry has been that it looks as though, simply because they are original, they are necessarily good. Therefore, there is no anxiety about the evaluative nature of the concept employed, but some anxiety presents itself when the claim is made that because someone is original he is good.

The nature of what is being claimed here needs to be looked at carefully. Can this particular point be sustained? On the whole, there seem to be three reasons why a particular evaluation has been
offered for anything original.

The first one is the more recent insistence upon what has been called 'child-centred education',¹ where teachers have presumably been concerned with the values which children themselves have. The second one is concerned with an interest in the idea of autonomy. Thirdly, there is some kind of value to be given to any learner's way of coming to grips with the material to be learned.

These three reasons are very important in explicating a concept of creativity because there does seem to be a very fine thread separating the kind of originality which is thought to be coming from children and the kind of originality which I have shown is necessary to the concept of creativity. This fine thread is more apparent than real but in some of the arguments which can be mustered to show that all children are creative, it does look as if there really is some support for what is being held.

This idea is held because there is a sense in which children are original and there is a sense in which any such originality is praised. What, however, needs to be shown clearly is that the kind of originality displayed by children is not necessarily the one which is praised under a concept of creativity.

For the purposes of identifying the kind of originality which is being praised when people talk about child-centred education, I want to look for a moment at some of the things which Dr. Wilson says in his article because here, it seems to me, a full-blooded account of child-centred education is offered. He says, for example, that "a situation

is only to be regarded as an 'educational' situation when what is held to be of 'educational' value in it is what is currently held to be of value by the person avowedly being 'educated', even when that person is a child".¹ Later, in the article, he claims that "children have no other values than their present ones".² This, of course, I would accept as true, but the chief worry is to discover from what he says and from what is implied, what education actually is.

If we educate the existing values of children, are we merely developing the ones they actually have or are we sometimes concerned with the changing of their existing values? The nearest that Dr. Wilson comes to implying a concept of education is when he discusses a problem of stealing.³ In this example, he is keen to show that we should not really be concerned about leading children to an accepted conviction even though, as a matter of prudence, it might well be necessary to stop a pupil stealing or to induce him to stop himself.⁴ Here, he thinks that the pupil would value stealing but he would also have learned to value not stealing and, "as a matter of prudence, one would hope that he would value not stealing, on balance, more".⁵ Further, and this is the point which Dr. Wilson makes: "As a matter of education, however, since his valuation of stealing is itself unchanged, nothing has happened. He is no more educated about stealing than he was before."⁶ To exemplify how things could be improved, Dr. Wilson apparently thinks of the educational side as perhaps helping him to see, for example, what he was stealing or what was the significance of the things he stole.⁷

¹. Wilson, P.S., op. cit., p. 105  
². ibid., p. 126.  
³. ibid., p. 117  
⁴. ibid.  
⁵. ibid.  
⁶. ibid.  
⁷. ibid.
Now this point is crucial. Suppose a pupil does not value our idea of attempting to help him to see what he was stealing or what could be of significance among the things he stole, on Dr. Wilson's account if he did not see value in what we were doing, we would not be educating him; and yet, on his account, this amounts to one of the only ways in which we can educate him. This looks to be utterly contradictory.

What probably is implied by ideas of child-centredness in education is that if there is to be any education at all, it must proceed from where the individual learner is at that moment. This does not mean that we must consider where the child is, to be good morally or economically but good as a groundwork, as a means to any other possible good.

It is here that we can detect a direct connection with the kind of value to be given to any learner's way of beginning to see anything in what is offered to be learned. In one important sense, in learning there is necessarily a grasping of something new, and here the learner is acting in one sense in an original way. He must do the learning himself. The source is in him. Therefore, there is a possibility that the emphasis which is being placed on originality is concerned with the various values which are important within education, and therefore, within general moral development.

These two reasons, then, are interconnected, at the very least. The other related reason is connected with the interest in autonomy. To illustrate the point I wish to make, I would like to look at the interpretation of the concept of autonomy as given by Professor Dearden, which has some credibility.
According to him, the notion of autonomy was first applied to the city in Greek times. He writes: "The city had autonomia when its citizens were free to live according to their own laws, as opposed to being under the rule of some conquering or imperial neighbour."\(^1\) Actually, if autos and nomos are combined, it can be said that as applied to the Greek city state and to modern states, autonomy certainly looks as though it can be employed without any necessary reference to a universal moral law. This is a helpful way of looking at autonomy since some means of comprehending what people are doing are made available without those means being thought of as moral.

Professor Dearden is mindful of the rule-following notion inherent in autonomy but his emphasis tends to be on the 'self' aspect of it. In fact, in his article, he suggests that "a person is 'autonomous' to the degree that what he thinks and does cannot be explained without reference to his own activity of mind".\(^2\) Actually, at the very beginning of his next paragraph this suggestion has become something of a definition. It is true that whenever autonomy is used, the indication is of a person's managing by himself, and to do this he must be minimally free. In this sense, what he says of autonomy as regards the self looks sound enough; but of course, there must be some rule-following idea built into the concept.

The points which Professor Dearden raises later concerning autonomy, reason and truth indicate that he considers that an increase of self-knowledge is necessary to autonomy\(^3\) and the idea that he uses is that "the better we know our own motives, wishes, purposes, typical reactions

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2. ibid., p. 453
3. ibid., p. 456
to others”, then the more likely we are to control what we think and do. This can refer to a point where he is concerned about the idea of internalising rules which looks to be an idea made by Piaget when one passes from a heteronomous to an autonomous stage. Such internalising, thinks Professor Dearden, could be merely the obeying of authority present in fantasy. This is a possibility but if it becomes clear that someone has merely internalised rules without subjecting them to scrutiny, such a person is not thought of as autonomous. He is thought of rather as a stick-in-the-mud or conservative of pig-headed or obstinate. It is likely that it does not become clear which appraisal is the most appropriate until the conditions under which people operate are manifest. Yet in so far as we are aware that new conditions or new circumstances make no difference and that in fact a person still abides by old, inappropriate sets of rules which remain unexamined, we do not think of him as autonomous.

It is for this reason that notions of truth, understanding of our own motives and other points about ourselves and our relations towards other people, are of significance in determining whether a person is autonomous or simply pig-headed. What such a person observes is a form of rule but it misses the point of the idea of a rule which is to govern. If, for example, a form of rule were adopted which would mean that the superficial nature of a rule were observed, it would ignore the purpose of a rule. Therefore, suppose we heard that many people were rule-following and we envied them, we could claim that we also had a rule which was to imbibe alcohol on every seventh day. Now, this has the form of a rule, but if it led to our physical downfall which we didn't

1. Dearden, R.F., op. cit., p. 456
2. ibid., p. 450
want, on what grounds could we call it a rule? If it does not govern in accordance with some desired end we do not think of it as a rule. It merely has the form of a rule.

This looks to be the unexpressed argument behind Professor Dearden's view of whether to call autonomous a person who demonstrates against the South African Springboks' rugby tour to Britain. To determine this we need to know what kind of rule he is following. It is at this point that the utter rule-following nature of autonomy is given a place. Of course, then, a person is autonomous when "to the degree that what he thinks and does in important areas of his life cannot be explained without reference to his own activity of mind", but equally, along with this, the rule-following is essential.

If both aspects are accepted, autonomy can be seen to be a workable concept in creativity, because, basically, there is a possibility of seeing some kind of order in what is offered as a creative product; without which order there is no understanding on anyone's part.

However, the stress of the concept of autonomy, especially as it is offered by Professor Dearden, is the stress on self, as being the source. Here, then, there is some kind of praise given to a person merely because he does something on his own. There is certainly no indication within the concept as has been expounded by Professor Dearden, that what one offers is of a high level. There is no need for this at all.

The importance of these two views can now be seen in perspective. Child-centredness looks mainly to be a plea that if children are to learn in any kind of meaningful way, then teachers ought to start from

1. Dearden, R.F., op. cit., p. 453
where children are intellectually. Their values should count as starting-points. This, of course, implies that teachers should value pupils. Moreover, in so far as they are learners, they can be seen as sources: they must, if they are to be learners, act in an original way.

Again, with a concept of autonomy, there is similarly a stress upon individuals as sources, as working out things and coming to decisions on their own.

In each case there exists an idea of originality and an idea of value. Yet, and this is where confusion has arisen, both ideas are built into the concept of creativity.

If we look back upon the chief usage of creativity then we must consider that while many people have offered original ideas, they have not been praised on account of those original ideas. Because of this, there must be a distinction between being in a sense original and praised, and being original and therefore praised.

Thus, if we are to teach, we do not merely say that we shall check whether where the learner is should be only sometimes valued as a starting-point. Nor, if we are judging autonomy in people, do we wonder whether only sometimes should we take account of an individual's own activity of mind. In both cases, there must be some acknowledgement of originality and value.

It seems, then, that when we consider some of the ideas concerning children and their freshness, it looks as if we have lighted upon the notion of originality without investigating the particular value which we were placing on it. Again, when we have spoken of autonomy, we may not have realised precisely how the value which we have placed on
individuals as sources, should have been interpreted.

What is clear in the central usage of creativity is that certain people are singled out for praise because in some way we value their original contribution.

Originality and the enrichment of understanding

Some concept of originality, then, is necessary to the concept of creativity, and precisely what this is needs to be made explicit.

From what has been maintained, it cannot be accepted that merely because someone thinks of something original it is therefore creative, since such could be unhelpful or stupid; and no one has ever been thought of as creative whose ideas were unhelpful or stupid. Thus, as opposed to the sense in which 'original' may be used in connection with ideas centred on learning or autonomy, within the concept of creativity, the actual originality is not merely accepted but is evaluated. If it does not attain a definite standard, it is not accepted. Here, then, the position is not one of saying 'original, therefore good' but 'original and good'.

What now is slightly puzzling is in which sense must such originality be seen as good. Clearly, it cannot be necessarily moral, for it was agreed that there was a possibility of thinking of those who participated in the Great Train Robbery as creative. Nor can it necessarily be economic, since many people, especially poets, can be at once judged as creative and as essentially non-economic.

However, it is true that if we operate within a system of values which is subjective, then the kind of originality which will be praised
will have to fit into a network of values in a hierarchical way.
Thus, if one's values were finally economic, then any evaluative idea
would have to fit into the scheme. Actually, if this were completely
the case, then what other value schemes (apart from a consideration of
the creative), like religious or moral could mean, would present diffi-
culties which would be logically insuperable. Yet, in having a minimal
grasp of the concept of creativity, the person employing it within his
economic value scheme would at least allow that the kind of originality
which was worthy of praise would be one which enriched understanding.
If this were not so, then there would be no way in which he could see
that what was offered could contribute to his economic value scheme.
This applies whether our values are subjective or relative.

On the other hand, if we operate within a rational scheme, then
the value placed upon originality must be either instrumentally good or
intrinsically good. It cannot be intrinsically good, for some original
activity is poor. If it is instrumental, what end does it serve?
All the various values, like the economic and the moral, could be listed
to check whether one would be essential; but at least, before any could
be, what must be accepted is that any originality must enrich under-
standing, since otherwise it could not contribute to any other value.
This renders originality, seen under the concept of creativity, necessary
if conceived of as enrichment of understanding.

Now, while it is quite often expected that the end which people
have in mind in assessing value is economic, it might be thought that
some end like this is necessarily to be linked with that aspect of
originality which enriches understanding. This, though, is a mistake.

Any value attributed to originality will have to be seen within the
the system of values which is held. For example, if my supreme value were comfort, and a new idea suggested a way of increasing this, then it would be possible for me to value the idea. On the other hand, with the same supreme value in mind, if a new idea were suggested, say, for assisting under-nourished people which decreased my comfort, I could not value the idea.

Where I see a value in originality under a concept of creativity two points are necessary. First, it must accord with my scheme of values; secondly, I must see some idea in it, which means that my understanding is enriched.

Among people who have offered original ideas, we have singled out those who, we consider, have acted so intelligently that they have enriched our understanding. Of course, I can imitate the awards of others, but if I am genuinely to claim that someone is creative, I must see some point in his original activity. If I see no point, then I cannot make a positively evaluative award.

At this juncture, further precision may be offered about whose understanding is enriched. Clearly, if observers are already familiar with the kind of solutions to problems which they evaluate as intelligent, then it may not be said that these observers have their own understanding enriched. Yet, there is an enrichment for those thought to act intelligently. If those evaluated as intelligent are also familiar with those moves, and merely again act in a normal way, then their normal way is one which is comparatively enriched. Their understanding is thought to be at a high level.

However, some intelligent performance is original. Here, an observer will acknowledge that his own understanding is enriched. What has been
offered brings light. It is an identical evaluation which an individual makes of his own intelligent, original, non externalised activity.

It can therefore be seen that what is evaluated under a concept of creativity is an intelligent originality, one which enriches understanding.

**Conclusion**

It is certainly interesting that the concept of creativity has always been evaluative, but of course, this has sometimes entered the meaning behind linguistic usage so deeply that it has remained implicit, and has needed to be brought out into the open. Perhaps because it was so embedded, that in trying to say something of it, some people have actually missed the evaluation. Another reason was concerned with the functioning of the verb 'to create', which, though founded upon an evaluation, has since moved away to become a descriptive verb. The tendency to try to pass directly from verb to adjective has involved people in overlooking the essential evaluation which belongs to 'creative'.

In the holding of values we may not always be rationally justified, and in concepts which, like creativity, embrace others, there are certain difficulties if the values are not made explicit. Even when values are characterised as subjective, relative and objective, there is still a difficulty if we consider the classification as giving complete information. A subjective value, for example, could include the values of others, and actually look like an objective value, and it is only when discrepancies in judgements arise that we begin to suspect not only how a value is held but what it includes or excludes.
The concept of creativity has always included some idea of originality but in which sense this has operated has not usually been made clear. The arguments which I have offered press unequivocally for an evaluation of originality which enriches understanding. In this sense, there exists an evaluation of a high level of intelligent performance.
CHAPTER 6

The concept of Creativity - some final points

Introduction

There seem to be some ideas which come under the concept of creativity but instead of offering some elucidation of the concept, they have simply added confusion. One such idea is the linking of 'creative' to 'create' in such a way that any kind of creating or making becomes sufficient for viewing the making as creative activity. I have referred to several of these ideas during the preceding chapters. However, now that the criteria of a concept of creativity have been established, it would be useful to explore some of these leading ideas which lie at the root of the various confusions which are met in an attempt to become clear about the concept.

Apart from the various errors centred on the evaluative aspect of the concept, quite frequently ideas have been opposed to one another as if they were dichotomous, and the consideration of these ideas has implications for the concept. One example here is the idea of being academic and its necessary and sufficient connection with a concept of thinking. In one instance, thinking has been associated with the academic, whereas other areas of activity, not normally thought to be academic, have been considered to be different in kind; in which case the idea of thinking has not been attributed to these activities. Of course, there are two implications of this view. One is that doing Mathematics or Latin is academic, and constitutes an activity of thinking and pursuing highly intelligent enterprises. The other implication is that non-academic pursuits, like painting or playing football, constitute
acting non cognitively. These, then, appear as low-level pursuits.

There are several so-called dichotomies which are in need of investigation, and the first one I have selected is that between acting on implicit and explicit rules. This is of particular interest because one idea about evaluating people's ability is to offer them tests which are verbal. What I have continued to press for is that intelligent performance can be evidenced in any field. To judge of that performance, while it may be easy to ask questions of the performers, the very asking presupposes some competence in verbal language. Properly to judge, we need to be initiated to some degree in the activity, and we need to observe the performers. The implication is that people may be implicitly aware of ideas, and act intelligently, and even creatively.

Now, the utter opposing of the ideas of the implicit and the explicit may be pressed too far by some people, so much so that the explicit conjures up ideas of language and thinking, whereas the implicit conjures up ideas of knacks or drives or instincts, the vague and mysterious.

By exploring this and other so-called dichotomies, a concept of creativity will be even more intelligible. This is so because once seen in perspective, through their means we can become clearer about the kinds of interconnections which have a definite relationship with a concept of creativity.

Dichotomies seen in perspective

(i) Acting on implicit and explicit rules

In order to gather some kind of view of a particular subject it is very often helpful to offer a model which enables us to gain some kind of insight into a subject. For this reason, dichotomies have frequently
been suggested whereby people or ideas are classified. For example, the idea of introversion and extraversion is quite useful for looking at people's behaviour. Another example is Bernstein's idea of elaborated and restricted codes. These models are helpful in so far as they relate back to one particular idea. So, at least, with introversion and extraversion we are considering behavioural characteristics, and with elaborated and restricted codes we are considering one point in common, namely the way people speak the language.

However, in using some dichotomies we may sometimes be guilty of not going back with sufficient analysis to see what is in common with both elements. If sufficient clarity of analysis is offered, what we shall find is that there are two possibilities of looking at the elements. They are either disparate or interconnected. In trying to explicate the concept of creativity, it has been found that dichotomies abound, and by being aware of this distinction, a way to clarity is pointed. So, with the various dichotomies to be examined I shall be directing attention to deciding whether, for example, thinking and feeling are disparate or interconnected ideas.

First, I want to take up the idea of the dichotomy between acting on implicit and explicit rules.

What one may hope for here is that the dichotomy would begin to explain what lay behind both the implicit and explicit, namely acting or thinking, but in one leading example which I have taken from Professor Oakeshott's work, this does not seem to be the case at all. Professor Oakeshott is probably right about the kinds of points which he makes concerning the picking up of habits of conduct, especially when he claims that we do not construct "a way of living upon rules or precepts learned by heart, and subsequently practised, but by living with people
who habitually behave in a certain manner". This is probably true but what he has done here is link the notion of explicit rules with the giving of words which, if understood, would be considered properly to be rules. Of course, then, it looks as if the explicit side of things is to be depreciated, and, in fact, this seems to be the area for Professor Oakeshott of thinking, whereas the other area of implicit rules seems to be the area of feeling. So, instead of going back to what both elements of the dichotomy have in common, namely thinking, we find that the implications of one are concerned with thinking, but the implications of the other are to do with what he calls the heart. In fact, in the example which he recounts concerning the wheelwright, he again emphasises the point about explicit principles. The wheelwright apparently maintains that in his job, the right kind of stroke which he has to employ cannot be exactly calculated in explicit terms: it "cannot get into the hand unless it comes from the heart. It is not a thing that can be put into words \(\text{rules}\); there is an art in it that I cannot explain to my son".2

What is important to notice here is that although rules may only be implicit, it does not follow that thinking is absent and thereby forcing us to consider that something else must exist, like feeling. The kind of stroke can indeed be felt but this perception will require a categorising activity in order for it to be felt as different from another stroke. The wheelwright, of course, would claim to know that this was the right stroke, and while he might not be able to verbalise this, he would be able to offer some kind of evidence that he knew, by pointing to the wheel which he had produced, for example.

2. Oakeshott, M., ibid., pp. 9-10 (footnote)
Making things explicit, especially in some linguistic form, is not necessary to showing that thinking is being pursued. The real difficulty lies in imagining that feeling is quite divorced from thinking which, the argument goes, is evidenced by explicit rules. There is, of course, a claim that the sight or feel of things can cause physiological changes in us upon which we act, and this is credible. Yet, normally, if we are saying that such a sight or such a feeling is present, then it depends upon a consciousness. At a lower level, merely because our bodies are governed by ordinary mechanical laws, then if certain stimuli are brought to bear upon this system, we would expect the system to conform to ordinary mechanical laws. Yet, this is not really to claim that we are talking about the sight or feel of things changing us to such an extent that we act, because if we are truly acting, then such acting will minimally depend upon a consciousness, and also upon a concept of thinking. There is, though, never a need to be conscious of our consciousness, for if we are immersed in an activity then to draw away from this in order to observe ourselves in the highly conscious state of being immersed in that activity, is necessarily not to be immersed in that activity. Being conscious of what we are doing, without at all being explicit, is to be a thinker at the very least.

Under this general idea of a distinction between implicit and explicit rules, have come the ideas of the theoretical and the practical, and these have been frequently opposed. We speak about the theory of music as being pursued in a different sort of setting from the practice of music. With the theory we do not expect to hear musical sounds, except of course by way of illustration. This kind of distinction also applies to the theory and practice of education. While this distinction is quite useful in identifying approaches, the tendency has been to see
each element in the distinction as different in almost every way. One extreme view is expressed in the idea that some things are all right in theory but of no value in practice. Some analysis of the ideas of theory and practice has been offered in recent times, particularly by Professor O'Connor and Mr. Moore. However, although both give some accounts of theory, what they do not seem to do is to light upon this idea where some kind of dichotomy between theory and practice has existed, whereby they may be enabled to see that the functioning of dichotomies has often been misleading. So instead of going back to what both elements had in common and examining these points, what has happened is that both elements of the dichotomy are seen as disparate, and this has been most misleading.

In every usage of theory, whether we talk of theory of knowledge, theory of value, group theory, theory of number, 'I have a theory that . . .', what lies behind these usages is the meaning of 'a system of understanding'. On the face of it, when people engage in some publicly observable behaviour, it may not look as if this is covered by a system of understanding, because so often people have considered that such a system of understanding or theory has been entirely encompassed by words, and this has been seen to be divorced from any kind of observable activity.

However, it is a mere convenience that a theory or a system of understanding can be put into words. There is not even a need for this rendering in words to show that one has a theory or understands something. Some meaning will have to be given to the having of or working on implicit

rules. A system of understanding could quite well cover a non-linguistic area where the very last things we would ever want would be words. Non-linguistic areas covering Music, Art, Movement are all essentially non-verbal areas, and in a very important sense these can never be reduced to the purely verbal.

Thus, if we are going to see any kind of value in practice, then the practice can not be devoid of a system of understanding. In this sense, theory is necessarily part of what practice means. This theory, however, is not one which is necessarily reducible to verbal language.

While language can be extremely helpful in directing our attention to various points which there are in activities, like Music, Art and Movement, the essential value of any of these activities is non-verbal. Now, if there really is value in any of these activities, the value will be finally available to us through our ability to pick up principles; and probably, in the first instance, we would pick up these principles as we would pick up the principles of language. This ability to pick up the principles of language certainly argues for thinking, and also argues for intelligent thinking, since connections will have to be seen between what is said and what is meant by what is said.

Altogether, the kinds of ideas which have been current as a result of Piagetian studies, are that we start off by looking at the world in a very concrete way and only gradually move on to what have been called formal operations or abstract thinking. However, what my arguments point to is that there is a necessity to act intelligently, so that we are able to pick up principles of language which therefore will require what is required in formal operations. All that the Piagetian studies seem to point to is that there is a movement towards formal operations, but only as regards language acquisition. They have no kind of
reference to acting implicitly, and this lack of reference has clouded the whole issue.

If, for example, formal grammar and its mastery indicate a level of acting abstractly, so much so that young children cannot be expected to see what constitutes a notion of plural or conjunction or adverbial clause, then what must be admitted is that children do in fact see what lies behind the notion of plural or conjunction or adverbial clause, but they see all these by the grasping of implicit rules or principles and not in a linguistic, explicit way.

The thrust of Piagetian studies has been directed at the method which has enabled children to grasp the principles of language in an explicit way, and not at the method by which children think. Thus, there has been a failure to see the operating of implicit understanding, which has emphasised that the elements of the dichotomy between the implicit and the explicit are disparate.

Mentioning these points is valuable because it highlights the tendency of writers to link too closely thinking and verbal language and therefore to regard certain forms of activity as low level. One clear implication here for the concept of creativity is that any area of activity is available, not simply the creative arts, since all areas of human activity are areas of thinking, and for the exercise of intelligent performance in which originality is a possibility.

(ii) Feeling and Thinking

The second dichotomy I wish to pursue concerns feeling and thinking. This is an example of a dichotomy where, on the whole, there has been an insufficiency of returning to what is common to those two elements in the dichotomy. The idea of feeling has been extremely vague over a long
period, and if a genuine analysis of this element of the dichotomy had been thoroughly undertaken, as Anthony Kenny has done in more recent times, then the dichotomy would not have been seen to represent simply disparate elements. This is a point which is in need of elaboration.

The whole feeling area has sometimes been thought to be the specific domain of creativity. On the face of it, this area is not seen as one in which intelligent performance is at stake because already it seems as though we have a dichotomy between thinking and feeling. There has been a strong tendency for this area of feeling being thought of vaguely, but at least there has been one point where some kind of explicit account indicates the idea of feeling as being opposed to a cognitive appraisal. The question then is to discover what this feeling is as opposed to a knowing. The best that can be done here is to offer some account of the arguments of Anthony Kenny.2

Feeling covers both emotions and sensations. Some sensations are localised, while others are of a general nature. Thus we can sensibly say that we feel sorry or angry or that we feel toothache or that we feel 'under the weather'. Emotions, for example, those of anger or remorse, may be accompanied by sensations, but what is at stake is that in order to characterise any particular emotion, some appraisal of a situation is necessary. Without that appraisal there is not the emotion. It is true that emotions are passively experienced but they do not come about haphazardly. They are so experienced because of a particular way

1. Ref. Ghiselin, B. (ed.), The Creative Process, op.cit., where D.H. Lawrence says: "We know so much, we feel so little", p. 69. "The conscious delight is certainly stronger in paint ... perhaps the joy in words goes deeper ...." p.71.
of appraising situations. Concerning emotions, then, outside of some concept of thinking there is no possibility of their existence. What sometimes happens is that we appraise a situation wrongly where, for example, we think that a certain situation is dangerous and we are afraid. Our cognitive perspective may be muddled but, at least, our emotion will depend upon it.

If we have a particular sensation, this may well be dependent upon our specific emotion which is then dependent upon our appraisal of a situation. In any kind of talk about paint, for example, the idea must be that we are somehow aware of the paint, since apparently, as painters we do something. It would, of course, be a different matter if, for example, the fumes of the paint somehow anaesthetised us where we became entirely passive and our movements like reflexes. Yet, we are discussing an evaluative concept. Thus, the feeling which is under discussion is one which is dependent upon a seeing, and so there is no sense in trying to claim that the feeling is divorced from the cognitive perspective.

If only the analysis of feeling had been pressed back to what was essential to it, these two elements of the dichotomy, namely feeling and thinking, would have been seen as not disparate but as interconnected.

Of course, instead of acting intentionally, we may simply be causal in bringing about something new, which indeed may be aesthetically pleasing. This may actually be confused when people look at what has been brought about, and this may lead them to think that they are appraising someone who is creative but they are in this instance, actually, mistaken. The following will exemplify the mistake. Suppose as a result of a particular sensation our body becomes transfixed in an
unusual way and through a similar, subsequent convulsion an identical situation arises. Others may think that we are offering something original and valuable; but what we must do here is to distinguish between the understanding and the functioning of principles from the awards made which, though made on principle, may be empirically at fault. This kind of situation arises in the awarding of moral epithets. An individual's own good can be so tied up with others that it is extremely hard to detect whether or not he is acting morally. As another example, it is quite possible for someone to be causal in bringing about some kind of good towards another person, and it may be difficult to pick out whether the intention was present. If, then, we are to claim that he was good, we must allow that intention was present but that it was present is by no means easy to ascertain. Thus, we may have called someone creative only to find that the awarded person was drunk, and fell upon a piece of clay. By analogy, we may have offered an award of 'kind' to someone, only later to discover that his action was isolated, and attributable to a knock on the head which he had just received. The award in each case would, in principle, have to be withdrawn.

(iii) Thinking and Doing

In this dichotomy we are similarly placed as with the last one. What again should have been done here was to have gone back to the basic points of the meaning of doing and thinking whereupon there would have been seen an interconnection. However, there has been a great deal of emphasis on the distinction between doing and thinking, and the actual doing has been looked upon as covering an area of
observable movement. For example, the creative arts have envisaged Art, Music, Drama and Movement. Of course, on the face of it, these are all areas of doing, but what must be maintained is that they are not 'doing' which excludes thinking. It may well be that it is considered that other areas of arts, like formulating a critique of Hamlet or writing a dissertation on some historical topic or concocting an argument to show that Descartes had no valid grounds for claiming to be starting from scratch in establishing his first propositions, are all non-creative. They are academic, it is true, and it is probably in this area that a distinction is being made. The creative is being opposed to the academic. One is thought to be the area of thinking, the other the area of doing.

Such a dichotomy, viewed in the sense of there being two disparate units or elements is utterly mistaken. There is a related point which also indicates a misconception and this is where the 'creative' is thought to be merely the adjectival form of 'create'. This, then, has suggested a making or a doing which superficially can be evidenced in moving, in making sounds and in painting. Yet, what is of first importance is that basic to these doings or these activities is some clear command over the manifestations of their art forms. They are not, it is true, bounded by what is known as the academic, but what needs to be emphasised here is that the most simple skills are evidence of the exercise of thinking, in becoming organised in terms of selecting and carrying out the right kind of movement to fit the situation.

Clearly, those people who advocate the following of particular courses in such creative arts, would be considering the doing or the activity, in the strong sense, which, I have shown, is intentional. Thus, to consider the concept of creativity as covering the making of
things which can be observed, and merely observed, is to conceive of the concept extremely narrowly, and for this reason is mistaken.

Levels of intelligence

By making explicit the ideas lying behind these dichotomies, my earlier argument concerning the concepts of thinking and intelligence becomes even clearer, and more directed to the discovery of the groups of concepts which have a definite relationship with the concept of creativity. One leading point made very early on, was that any human activity could only be sensibly interpreted as a thinking activity, and it is certainly interesting that in the original ideas of Binet, 'I' intelligence meant thinking. Of course, the way that 'intelligence' has been used in more recent times has been closely aligned to the work done on I.Q., but alongside this has been the ordinary concept of intelligence whereby people were thought to be bright or quick. Thus, I have taken over both these ideas in the explication of the concept of intelligence.

What was discovered under this concept was that the seeing of connections between categories was essential in any concept of intelligence, whether popular or I.Q. - oriented. Next, what was noticed very clearly was that there was a tying of a value scheme, not only to the various connections which were seen between categories but also to the ends which people had in mind. As a result of these arguments, it was found that it was still possible to act intelligently without seeing any particular, original connections. This was especially true when we looked at the ideas of the 'academic'. What was also true was that in one important sense of the academic, my arguing pressed for the idea of
bringing about new connections unseen by others. The only way of dealing with these two ideas was to suggest that there must be levels of intelligence, because even though an individual in no way ever suggested an original idea, this did not prevent our calling him intelligent. Of course, there was a comparative idea, and in comparison with others who might well have suggested original ideas, such an individual was to be considered less intelligent, but nonetheless intelligent.

Now, what it is important to do is to see whether in fact there are levels of intelligence. This looks as if it has validity, but arguments are needed to show that the grounds for claiming that the seeing of connections unseen by others is more praiseworthy, more intelligent, are well founded.

The arguments which can be offered are these. Because the concept is comparative, then the more difficult of connections will render the one who sees them more intelligent. Thus, the claim is that the original connections are the most difficult because, presumably, it is their difficulty which prevents others from seeing them. As a counter-claim, it may be said that they may not be necessarily more difficult, but then in reply, we might ask for what other reason have they not previously been seen. Once again, the reply could be that a lack of motivation or opportunity could be responsible. Many other people, it might be said, if they had had a little more motivation would have seen the points which Einstein saw, and possibly before Einstein saw them. Again, because of a lack of opportunity brought about through insufficient training, people have not been able to see these particular connections which other, acceptedly creative people have seen. However, it may well be asked whether, whenever we are awarding praising ideas, we are ever
able to take into account all the psychological points concerning motivation. For example, we do not know all the reasons why people do not see ordinary connections. Some of these people may simply be slow, or they may have had a hard life and possibly have lacked opportunities, but whenever we say that someone is moral or intelligent or creative, we do not know about all the contributory causes of what people do. Clearly, in condemning people it would be important to search out as many of these as possible to check how intentional an act seemed to be. Just as with condemning, so too would it be important with praising. Yet, once checked, the praising is not for what would have been behaviour, and the condemning is not for what would not have been behaviour. The praise and the condemnation are for what is thought to be actual behaviour. So, in so far as the seeing of connections previously unseen by others looks to be difficult, the one who first sees them is bright, and to be praised.

The second argument relates to speed. In establishing the criteria of intelligent performance it was necessary to accept that the seeing of connections between categories was essential. Because the concept is comparative, if one sees connections between categories a little later that another person, then the comparison may be detrimental to the former person. This implies what I claimed earlier, in the chapter on Intelligence (Chapter 4) that where this was an important matter then speed should count. The overall idea may not require this in so far as each level of intelligent performance is representative of an increased understanding, but on the occasions when such a seeing of connections calls for speed, then speed will have to be accepted as necessary in this comparative way. Certainly, in highly competitive activities, like boxing, speed would be necessary.
Therefore, it may well be important on occasions to see original connections, and thus speed would be necessary, and the seeing of connections extremely important and this would denote a higher level of intelligent performance.

There is a final form of argument which actually puts into perspective the kind of originality which the concept of creativity demands. The argument is on these lines. First of all, if we can say that intelligent performance is praised and is therefore evaluative, on what grounds precisely do we praise intelligent performance? One could say, for example, that all that is happening is that relationships between categories are spotted and these are spotted at different levels and sometimes this spotting requires comparative speed. What more, then, is there to the argument? What good precisely is this intelligent performance? Is it a means to some other end or is it an end-in-itself?

Now, one idea is that in order to grasp some kind of conceptual scheme, then a form of categorising is necessary. This is necessary to understanding, which means that nothing can be understood, nothing comprehended unless some form of intelligent performance is offered. Does this mean, then, that intelligent performance is merely a means to understanding and if so, what is the status of understanding? Is that an end-in-itself?

Questions like these reduce us finally to working through a concept of reason. If we do not understand about things, there is no reason for us to do one thing rather than another. If, then, it is asked why we should concern ourselves with this, on which grounds should we be
bothered, the very form of questioning commits us to the idea of reason-giving, for we cannot ask these questions unless we are so committed. Therefore, there is a definite connection between our form of investigating, enquiring, asking questions, asking for reasons - and the whole concept of reason. So, if we are committed to reason-giving, then understanding becomes essential to the pursuit of reason. If we are attempting to hold that the concept of intelligence is evaluative it is because through the working of intelligent performance, we are able to see connections, which therefore enriches understanding which then points to the idea of reason; and thus the concepts of intelligence, understanding and reason are interwoven.

If now we try to see the specific value of originality within the concept of intelligence, there will be several points worth observing.

There look to be three leading ideas for the functioning of the concept of originality, and these are: first, where originality concerns doing something new in the world; secondly, where it concerns doing something new in the group; and thirdly where it means doing something new by the individual. Over and above these three leading ideas there is also the notion of the bizarre where, in bringing about something new, there are no particular standards at all; and here, almost anything ever thought about, however poor, however inept, could again be called original.

To see which sense of originality is necessary to the concept of creativity, we must search out that way of being original which in some measure advances understanding, and this is imperative.

It may be maintained that the truly creative bring forward ideas which are completely new in the world, and do not simply use ideas already
in existence. Now this is very difficult to sustain because there may be ideas which are used in one particular form or field, or domain of knowledge which has had some kind of existence in other forms or domains earlier, but in bringing about an understanding of an idea in a new form, this will be in its new form original in the world, but then the idea was already in existence. For most people, it would be a tremendous feat ever to discover which ideas were, in fact, completely new in the world. Even in an example like the discovery or invention of the wheel, could this have been the result, at least partly, of the concerted effort of thousands of people over a long period? It is very likely that very ordinary people saw the effects of circular objects rolling, but perhaps very few connected this with the wheel.

Again, with the invention of cocaine, a similar situation may have arisen. In one sense, the effects of tasting or sucking certain plants were known by ordinary people long before the invention. However, bringing this idea over to the area of dentistry would have been extremely helpful, and nobody had precisely seen this before, but the embryonic form of the idea was already in existence; and it may be shown factually that this is true of any invention. If this is true, then for what reason should we say that the truly creative must see some kind of connection which has never been in the world before?

As I have suggested before, an idea offered in one form may have previously been in existence. However, if activity is praised as original in the world, it need only be so original in the form in which it is presented. Here, clearly, understanding is enriched.
Criteria of creativity

The idea of intelligent original performance can now be seen as the enriching of understanding, and this enriching is part of the whole idea of acting rationally, to which we must be committed even in bringing it into question.

Now, the concept of creativity necessarily includes that of originality, but while it has been admitted that originality in some areas of human endeavour has been accepted as possibly an end-in-itself, not all ways of being original have been included under a concept of creativity. What has been argued is that only when originality enriches understanding is it possible to think of it as creative.

Such originality will presuppose the seeing of connections between categories, and such original connections may be completely new in the world but this cannot be utterly necessary. On the other hand, such original connections may be new in the form in which the activity is manifested, whether the idea of it has had existence or not; and this, at least, is necessary.

We may find that what has been evaluated of a person’s activity as creative may help the economy, advance political sway, contribute to religious or social welfare, but none of these helps is necessary. All that is necessary is that the activity of a person is evaluated as original in the sense that it must enrich understanding, and for this to be possible, intelligent performance of a high level is presupposed.
Conclusion

Very often certain ideas have been opposed to each other. Examples are theory and practice and thinking and feeling. This kind of opposition inclines people to consider them as dichotomies where there appears to be an utter split between them; and yet, when they are examined, the ideas on each side of the dichotomy have been shown to be related. One important implication of seeing the interconnections between the elements of these so-called dichotomies is to see the concept of creativity as wider than a 'pure doing' which gives an impression of non-academic, practical, and being evocative of feeling.

Another clear point which was established was that merely because a high level of linguistic ability was not evidenced, this did not preclude the idea of a high level of thinking being pursued. Again, if there was to be genuine practice, an implicit theory was presupposed.

In looking at levels of intelligence a clearer way of seeing the relationships between groups of concepts became evident. Being original and being intelligent, understanding and reason are all, in some measure, related when we come to look at the implications of a concept of creativity.

However, there is always a possibility that people can act intelligently without necessarily being creative. This is so because one can see connections between categories, and do so speedily, without being original. Yet, to act intelligently at the highest level is to be disposed to suggest original ideas.

This idea of suggesting original ideas is necessary to the concept of creativity but the whole point of seeing the concept as including an intelligent way of operating is to insist that it is not anything original which counts but only that form of originality which enriches understanding. It is this that calls for the highest level of intelligent performance.

Here, then, we have a concept of creativity in brief, explicit terms.
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