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On Defining Creativity

I

The purpose of this short note is to provide a definition of the term creativity, and to sketch briefly a justification for this definition. The purpose is not to explore what creativity is, but to set the limits within which the term creativity can be meaningfully used.

To define is to set limits. A definition ought to set the limits within which a term is correctly and properly employed. It does so by clarifying the general context within which the term is to be used, as well as by setting down the specific differences that separate it from cognate terms within the genus. In doing this it stipulates meaning and usage that often differ from familiar and popular parlance. A strict definition of creativity, therefore, would probably differ from ordinary use, since most views of creativity currently in vogue fail to differentiate creativity from related words within the class.

Take for instance Pfeiffer’s recent definition of creativity as “the ability to realize creative products,” by which he means “a piece of work which is first to a significant extent new, original and unique and second shows a high degree of success in its field.”\(^1\) This definition, which in fact approximates the meaning most people attach to the term creativity, fails to distinguish adequately between (1) creativity and originality, (2) between different kinds of newness, and (3) between creativity as an ability or talent and its exercise, namely, the creative process.

Or take Torrance’s definition of creativity as “the process of becoming sensitive to problems, deficiencies, gaps in knowledge, missing elements, disharmonies, and so on; identifying the difficulty; searching for solutions, making guesses, or formulating hypotheses and possibly modifying and retesting them; and finally communicating the results.”\(^2\) There is no clear and adequate distinction here between (1) creativity and research procedures; between (2) creativity and discovery or insight; and between (3) creativity and communication.

A similar lack of specificity may be detected in the ordinary usage of the term creative, as in “He/she is a very creative person.” Does this mean the person’s behavior is original? odd? merely different? or that the person makes new or original objects? or that he/she makes more than others? Does this mean that the person interprets things and events differently from others—in a more novel or divergent way? It is not possible to discern the answer to these questions from this usage of the term creative.

An enormous body of research has accumulated that purports to elucidate aspects of creativity, factors that enhance or hinder it, and test its presence and the degree to which it occurs.\(^3\) Yet all this body of research starts from either ambiguous definitions or, in some cases, no definition at all—the assumption being, I guess, that everyone knows what creativity means, or that any definition will do.

In the next two sections I shall try to specify the notion of creativity. I shall make use of two main lines of argument. The first one, being the weaker one, should be seen as preliminary, and will be based on


the etymology of the term *creativity*. The second and stronger one will be based on the data of experience. These data will be subjected to a careful logical analysis. The result will be, I hope, a clear delimiting of the notion of creativity.

11

Etymologically, *to create* (Latin *creare*; Hebrew *bero*; Greek *ktidzo*; Sanskrit *kriya*) means *to make, to produce* in a physical sense. Such is the meaning, too, of the cognate to *generate, to give birth*. The meaning conveyed is one of physical activity, or activity having physical, observable results.

Using etymology as an indicator or guide, then, creativity must be seen as a making, and as such must be distinguished from (a) thinking in its various forms, such as discovery, insight, guessing, and so forth, in the same way as a private activity must be distinguished from a public one; and from (b) products, in the same way as a cause must be distinguished from its effects. Similarly, creativity must be distinguished from (c) originality in the same way as any quality must be distinguished from its substratum.

The last distinction is important, since the term *creative* is often used when the term *original* would be adequate. Yet originality as a quality cannot be assumed to be necessarily and invariably present in any and every productive process—or for that matter in any process. Some processes may have it, others not. Clearly, the process of making something new and original does not differ from the process of making something ordinary. It is not the process of spray-painting *quâ* process that distinguishes a Twardowicz from a good spray-paint job at the local garage. Other questions must be asked, most, if not all, of which pertain to the product or to the original insight.

There is no reason, then, why this confusion between originality and creativity should persist. When a person makes something, there should be no question that he/she has been creative. When the product or thing made is not significantly new, etc., it should be sufficient to state that it is not new, original, etc., and when a person never makes significantly new, etc., products, it should be enough to state that the person is not original, or, more accurately, that his/her products are not original. And, finally, when something new appears in the world, it does not necessarily mean it was created. There is, after all, a distinction between *products* (the results of deliberate manufacture) and *effects* (the unintended, fortuitous results of action).5

To return to the differentiation of the creative process, it must be quite clear that, in the same way as it is distinguished from its products, creativity as the process of making is also distinct from (d) its antecedents, the incubational processes that lead to insight and discovery, and from (e) the "capacity" or "ability" to create in the same way that any act must be distinguished from its potency.

The latter is an elementary distinction. When Rothenberg and Hausman, for instance, define creativity as "minimally . . . the capacity for, or state of, bringing something into being,"6 they ignore this distinction. For, to begin with, a being cannot be simultaneously both capable and actualized in the same respect. A cannot simultaneously be *B* and not-*B* in the same respect and in the same context. Creativity cannot be both capacity and process at the same time and in the same respect.

Secondly, and more specifically, to define creativity by reference to capacity or potential is to define it by what cannot be known until it is actualized, since potential can be known only after its actualization. Actualization is the potency in action. Therefore to define creativity as capacity is to define it by what cannot be known until it actually takes place. Since it cannot be known until it actually takes place, it is not possible to know what the capacity referred to is a capacity of, until it is, in fact, actualized. To define creativity by reference to capacity, therefore, is not to define it at all, since the referent is unknowable in itself.7
The confusion originates in the fact that it is, indeed, legitimate to conclude that, if a person is in fact creating, he/she can create: *ab esse ad posse valet illatio*. But such a passage from act to potency cannot be generalized in a real sense. The fact that I have created shows *a posteriori* that I could do it, but it does not show that I will be able to do it again. Such generalization is not warranted.

It might be argued that definitions of creativity by reference to capacity have in mind the notion of mere possibility, or theoretical possibility. But if this were the case the definition would be meaningless. Theoretical possibility is the possibility of what is not impossible. In other words, it is the possibility of what can theoretically come to exist because in its notion there are no mutually self-exclusive or contradictory characteristics. But mere possibility excludes existence. It never comes to be. It is a purely theoretical notion. A definition of creativity by reference to it would simply mean that it is not self-contradictory for human beings (or any being in question) to be creative. But this does not tell us anything about what creativity is. It simply tells us *that* whatever is meant by creativity is theoretically possible.

Similarly, any effort to explain or define creativity by reference to character and personality traits, or to mental aptitudes, or to the presence of favorable environmental factors, is bound to be ineffectual, since the existence of such factors and traits corresponds only to theoretical possibility, from which nothing can be concluded in the real realm of fact: *a posse ad esse non valet illatio*.

III

Creativity, then, is a process of making. But the identification of creativity as a process of making does not rest on etymology alone. It rests on the facts of experience and on logic. The facts are those anyone experiences who has gone through a *creative* process. The data are abundant, since there exist many fine introspective, first-person accounts of the *creative* process, and contemporary research has systematically surveyed and analyzed the experiences of writers, mathematicians, poets, scientists, and architects.

The data may be gathered from available sources. One ready at hand is Brewster Ghiselin's *The Creative Process,*8 which contains many first-person accounts by renowned individuals: Poincaré, Yeats, Cocteau, Einstein, to name but a few. Regardless of the medium, regardless of the sphere of activity, the same pattern is repeated over and over again. Each individual is immersed in his/her field of endeavor, and is constantly thinking of new literary works, new scientific advances, new theatrical productions. These conscious enterprises are interrupted by the affairs of daily living. Distractions abound. Days, weeks, even months and years pass by. A moment, however, arrives sometimes when everything that had accumulated without their attention bursts forth from the inner dikes of the mind. A vision is vouchsafed. After another lapse of time, or perhaps immediately, new activity may take place to concretize the image gained, verify the solution intuited, sound out the words or the music heard within. The regularity of the pattern is such that Graham Wallas, in 1926,9 was able to break down the total sequence into stages. Catherine Patrick10 offered later a more systematic confirmation of the stages. The stages have become generally accepted. They are (1) preparation, (2) incubation, (3) insight (or discovery, illumination), and (4) verification or concretization. I should add that this last stage often eventuates in (5) a product (in a broad sense of the term). The appearance of the product may then be followed by (6) a complex process of evaluation involving criteria of morality, of usefulness, of scientific accuracy, of originality, and of beauty.

Now, to anyone who has undergone this entire process, it will be abundantly clear that the process is not essentially completed until concretization takes place, whatever its mode or medium. It will also be clear that concretization is a "making," broadly
speaking. The meaning given us by the etymology of the term creation clearly fits the facts as described above in stage (4). It would seem reasonable, therefore, to identify creativity with a process of making or of concretization.

It is also clear from the distinctions made in the previous section that creativity per se belongs in stage (4). In fact, it is stage (4), the stage of making, in whatever way, in whichever medium, or of concretizing the insights obtained in stage (3). Beardsley puts it well: “the creative process is that stretch of mental and physical activity between the incept and the final touch—between the thought ‘I may be on to something here’ and the thought ‘It is finished.’” 11 Put succinctly, creativity is the process or activity of deliberately concretizing insight.

Still a further specification may be gained through a systematic process of differentiation, i.e., of comparison and exclusion. Even though only the barest outline can be presented here, it will suffice, I think, to fix the meaning of creativity as having to do with the process of making.

That creativity as the process of concretization differs from insight, illumination, or discovery (though it is intimately related to them), is easy to see: there is nothing in an insight that necessitates its being translated into the concrete. Insights, as Bernard F. Lonergan used to say, are a dime a dozen. Everyone has them, but few do anything with them. Moreover, insights are moments, flashes, while creativity is a process. The only record of a creative act (pace Koestler) is the Genesis narrative of creation. There it is said that God saw the light and the light was. This palindrome is ontic, but no human being ever duplicated it.

If creativity as the process of making differs from insight and discovery, it differs a fortiori from incubation, although again, it is intimately related to it. Incubation is the stage in which the various psychological processes take place which culminate in the moment of insight. This stage has been explored at length by psychologists of the most diverse orientations, and their contributions have cast invaluable light on the antecedents of discovery. But clearly, these psychologists have not studied creativity per se, only one of the antecedent stages, undoubtedly connected with the process of making, but in no way synonymous with it. The definition I have suggested here, with the various distinctions and differentiations, allows us to place their contributions where they belong, and to designate further areas of inquiry for those interested in research.

Finally, creativity itself differs from the whole four-stage process as a part differs from the whole. Some writers, including Wallas and Patrick, have implied that creativity refers to the entire process, which they then label “the creative process.” This usage is very common today, and it has led psychologists to think that they are studying creativity when in fact they are studying only incubation. It has also misled educationists, who then think they are cultivating creativity when in fact they are cultivating—or trying to cultivate—only insight.

But clearly, on the strength of etymology and of the data described above, neither preparation nor incubation nor insight are a making. Consequently, to apply to the whole process the name (and by implication the characteristics) of one of the stages involves one in the logical fallacy of composition, pars pro toto. Moreover, calling the entire process “the creative process” would have a semblance of validity only on the assumption that every preparation and incubation would lead to insight, and every insight would lead to concretization. But this is not the case. There is no a priori determinism within the total process: preparation and incubation do not always and unconditionally necessitate insight, nor does insight always and unconditionally necessitate concretization. Within the process as a whole, determinism applies only backwards or a posteriori, as an event depends on its condition sine qua non: there is no concretization without insight, no insight without incubation, and no incubation without preparation.12

IV

It should be quite clear that the definition of creativity presented here accomplishes

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two main tasks: it specifies the locus of creativity in the map of human experience, and it gives a general characterization of the nature of the creative process. But it does not answer a host of other questions, such as, Why is there a passage (some times) from incubation to insight, and/or from insight to creativity? Why do humans create at all? What are the characteristics of the process of creating or making? What is the relationship of creativity to its products? What is the relationship of products to originality? Are there social and/or environmental conditions which hinder/foster creativity? Or do they affect, rather, insight? Is making related to innate talent or ability, or can it be taught? Is insight connected to innate talent or ability? Does intention have anything to do with creativity (to differentiate it from fortuitousness)? Where does it belong in the process? These and many other questions remain unsolved, some of them poorly explored, because the specific field of creativity has not been clearly delimited. There is ample scope for research by the various branches of study.

Raymond Pfeiffer, "The Scientific Concept of Creativity," Educational Theory, XXIX, No. 2 (Spring, 1979), 133.


Aristotle, Nicom. Ethics VI.4 [1040a 20-24] and Metaphysics VII.7 [1032a 12ff.].


Graham Wallas, The Art of Thought (New York, 1954). See also John Dewey, Democracy and Education (New York, 1916), Ch. 11, and How We Think (Boston, 1933), Ch. 7, as well as Art as Experience (New York, 1934). In ancient times Aristotle had enumerated these stages in Metaphysics VII.7 [1032b 15].


See Henri Bergson, "The Possible and the Real," Ch. 3 of The Creative Mind.