

The Depersonalization of Creativity

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Since much of modern discourse, extending from cognitivism to connectionism, has been greatly inclined to look at human behavior in relation to processes where the subjective factor plays little if any causal role, it would not be inaccurate to say that the person has been left with but a trivial part to play in the overall script. The intent of this paper is to address this theoretical disproportionality by offering a more symmetrical account of creativity — one that reconsiders the reconstructive nature and generative capabilities of the person while not ignoring the contributions of technical and scientific thought.

There was a time when we glorified the autonomy of human expression by viewing creativity as a powerful unconstrained act by which a conscious being could dramatically transform a barren void into a rich new world. It would hardly be an overstatement to say that such a romantic notion appears to stand in far less favor today. The fact that intentional ascription in psychology has become more like a placeholder for things which are beyond personal awareness, e.g., computational routes and excitation patterns, somewhat audaciously suggests that the “how” discourse of causal theories may have become more explanatorily significant than the “why” element of human motivation; that creativity itself may best be viewed as not a sudden *creatio ex nihilo*, but as an “inching our way along” affair — the final result of a gradual accretion of experience (cf., Gruber and Davis, 1988; Perkins, 1983).

Such an end-state explanation, of course, flies with disdainment into the face of any intuitive or extempore notion of creativity by gazing upon the originating episode as a kind of childish, first-draft step in a more involved and progressive development. The creative leaps of Poincare, the “bisociations” of Koestler, the spontaneous reorderings of Gestalt, all would have

little meaning in this incremental setting for any initial burst of insight will always be modified many times over before it reaches its final denouement (cf., Perkins, 1983). As newer theories in science tend to have more explanatory power than those past theories which have fed them, so an act only becomes creative after a large enough body of data has been appropriately amassed (cf., Weisburg, 1986). Indeed, the creative act in recent thought would seem to be nothing more than an uninterrupted step-by-step modification of previous ideas based on increased information — “the gradual coordination of mental schemes” (Lubeck and Bidell, 1988, p. 38).

What are we to make of this somewhat mechanistic point of view? Is the creative act simply a borrowed token of sequential processes? It will be the intent of this paper to show that the current preoccupation of much of philosophy and psychology with hidden structures and underlying causes has certainly contributed much to establishing a coordinated and unified theory of creativity, but left unto itself such a concern is severely limited and does not adequately explain the full nature of the creative act. Since much of modern discourse, extending from cognitivism to connectionism, has been greatly inclined to look at human behavior in relation to processes where the subjective factor plays little if any causal role, it would not seem harsh or inaccurate to say that creativity has become depersonalized in the sense that our soul, our own apprehending and driving spirit, has been left with but a trivial part to play in the overall script. This being the case, one may look upon this modest effort as a preliminary attempt to address this theoretical disproportionality by offering a more symmetrical account of the creative act — one that reconsiders the reconstructive nature and generative capabilities of the person while at the same time not ignoring the contributions of technical and scientific thought.

The Plight of Recent Thought

It would surely be absurd to deny the tremendous contributions that causal accounts and mediational theories have made toward our understanding of human behavior (particularly in reference to our long range dispositions to act in a certain way and those constraints which influence our representation of the world). But to identify the creative act with the sequential accumulation of stored information is preeminently inclined to disdain the individual's primal musing by gazing upon the originating episode in a Piagetian sort of way; that is, as a kind of childish, first draft step in a more involved and progressive development (cf., Perkins, 1981; Weisburg, 1986). Such an overly objectivist account has the rather unsettling effect of surgically removing the person from the heart of the operation.

Although there is not space to traverse all that is involved in this perspective, there is more than a rationalist tendency within current philosophical and psychological thought to look upon the behavior of the individual as dependent upon a preexisting system of categories and beliefs that is divorced from his/her intentions but which still irrevocably shapes the direction the consequences take. What follows from this is the supposition that the individual is of lesser importance than the network of meaning at work; that, a fortiori, the creative act is either the result of strongly underlying factors (Langley and Jones, 1988) or simply a well-worn theory not worth discussing (Newell and Simon, 1972).

I really have little quarrel with the supposition that structural factors are contributing causes to human conduct. The fact that a good deal of human motivation, references and values are the result of inescapable conceptual structures which the individual has little or no control over makes any existential confidence in unrestricted human freedom somewhat of a misplaced idealization. Those who look upon the creative process as a "translucent activity with no parts and no hidden agenda" (Sartre, 1948), or as simply an uncontrolled Dionysian urge (Nietzsche, 1911; Norris, 1982), often fail to recognize that there are underlying events and processes which play heavily on our conscious mental life. No innovation is completely gratuitous in the sense of being devoid of representational content or totally unconnected to the contributions of past events.¹ There is always some sort of connection with a cognitive base if only to translate the messages received, to economize on the range of possibilities, to focus on and retain one's experiences, or to judge and improve the quality of the work. We are certainly indebted to those cognitive theorists who remind us that mediation is used throughout the creative process and not just to cap off the final stages.

What I would take issue with, however, is whether this ultimately implies that the creative act is simply an outgrowth of explosive combinational thinking and thus just a placeholder for more sufficient explanations. My own thoughts are that though this species of thinking has proven to be a very powerful technique for explaining the other-than-personal structures that

¹It is somewhat difficult to see, as Dennett (1977) astutely pointed out in response to Fodor's syntactical views, how an ahistorical, non-decomposable unit that has an integrity and order of its own is really coherent enough to connect the moments in a single life so that the same activity refers back to the same person. Certainly without some linkage between temporal events, without some ties to the past or integration with the future, it would be difficult: (1) to break down old *gestalts* into elements so that new ones can emerge, (2) to assess ourselves so as to permit discovery and growth of knowledge, or (3) to deal with the deep psychic content that others share. It is probably true that no description will completely capture first person experiences, but I doubt whether this implies that such experiences are isolated from previous events or closed off from future scrutiny.

mediate our behavior, it by and large does little justice to the flexibility and complexity of the human mind on at least two counts.

Firstly, though there are operations taking place outside our awareness (admittedly to the point that no matter how much one introspects he or she could be quite wrong about the contents of one's own mind), there is not enough that can be culled from such a fact to warrant writing of human consciousness in the decisive manner of Wilkes (1984) or Jaynes (1977). One gets the idea from the current trend of explanation that conscious content is nothing more than an accidental product of subconscious processes — a side effect of a particular kind of software package or simply the emerging product of a higher level of spreading activation (cf., Baars, 1988). Not only do such explanations leave us with no interesting connection with the conscious manipulation of symbols, but it makes any willful response on the part of the person simply a short-term event with no generative function (which is to say that we are no longer the center of what is meant or what has meaning).

But it seems ridiculous to think that we as humans are totally annexed by representational systems; that we are simply reading the contents of a coded text. Individuals may not be in a privileged position when it comes to the question of whether their judgments are a reliable indicator of their beliefs, but they do appear to be in a control position, since judgments come one at a time, to arrive at outcomes that are the objects of their decision and preference (see Rothenberg, 1979). Mediation theory may not need a ghost to make it go, but without a sharper distinction between the agent who engages the structure and the structure itself, without some type of differentiation between the belief acquisition process and the belief preserving process, such a perspective takes the symbolic factor too much to heart and offers us a causal explanation of behavior that makes the relation of element to element to whole so important that the creative act can only be distinguished at the cost of triviality or misrepresentation. I take it as obvious that a representational system is a semantic matter and cannot initiate action; that human consciousness, in the form of an awareness that attends to the occurrence of mental happenings, is still the place where the person most appropriately draws things together to energize the system as a whole, i.e., the place where persons can select or ignore content so as to put the world in their own terms.

Secondly, the fact that we cannot attend to all things consciously does not mean that the non-conscious part of the self is simply a storage place for information. Cases of blindsight, subliminal perception and co-consciousness (Hilgard's hidden observer) may leave in doubt the unity of consciousness and the sanctity of existential reference, but the fact that consciousness has gaps or is a matter of degree, and thus not omnipresent in mental events, does not imply that all background is representational or that there is no subjective aspect that persistently prevails. Those who would show us that there

is nothing mystical to the processes underlying thinking certainly can be applauded for their ambitious attempt to rid us of alchemic-like explanations, but such efforts do not warrant drawing the extreme claims (1) that there is nothing happening during unconscious activity (Langley and Jones, 1988), or (2) that the creative process is inevitably mechanical (Schank, 1988), if not just inevitable in its own right (Perkins, 1981). There is a rich play of unconscious self-organizing activity around (for example, the intentionality of dreams, cf., Globus, 1989) which rather strongly suggests that there are personal "aspectual shapes," even at the unconscious level, which may force any structural explanation to work within the scope of a more dynamic framework (see Natsoulas, 1992). This is certainly not to advocate a return to an unknown and unqualified substratum, but only to suggest that the structure of the unconscious is an active affair that takes note of life experiences and responds according to its own framework of interpretation (cf. Lewicki, Hill, and Czyzewski, 1992).

What this means for creativity is that it is extremely difficult to conceive of the creative act in completely derivative terms — as something that merely happens. Belief producing processes no more explain creativity than rules of logic explain thinking. Contrary to cognitive theories, which tend to see the creative act in last stage terms — i.e., as the final outgrowth of a gradual build up of processed information, there is not a sequential accretion of potential that culminates in an answer or a final actuality. Rather, there seems to be various degrees of actuality, or self-actualities, which persist in a more integrated and comprehensive process. New inputs of creativity can radically change the project's orientation, but the relation between earlier and later stages does not deny wholeness or imply in any way that later thoughts are more important to the creative act than their predecessors. The direction of time is not necessarily the direction of causality. Studies on metaphorical language make it clear that literal analysis is not a necessary stage for understanding metaphors and that at times the nature of metaphorical thought often exceeds the standards and constraints of its own system (cf., Gerrig, 1989). As the function of memory is not just backward directional and justificatory, in that a chronological past depends on a process of active repeated constructions (see Pribham, Nuwer, and Baron, 1982; Anderson, 1976), so the past and future are somehow present in the person before they are realized in the final product. The creative process is a continuous process of alteration, fit and development and not a cumulative phenomenon like weight.

The encompassing pictures of formative activity are not properly described in callow or coarse-grained terms. Rather the spontaneous leaps that may accompany creative thought, in whatever dimension one chooses to express them (there are seven for Gardner, 1985), are simply a way of covering more ground swiftly and cursorily — an efficient way for arranging unfocused data

into simplified schemes. Even if the nature of early thought is characterized, as Dretske (1983) seems to think, by some form of "analogical" thinking (as later thought is touted to be more propositionally or "digitally" based), none of this even remotely implies that the later stages of creative activity are really a quantitatively progressive accretion of earlier experiences or that they are without imaginary leaps. As biologists can talk about evolution while still recognizing dramatic disruptions, so the continuity of cognitive processes does not deny the possibility of periodic jumps. It is probably more correct to say that these leaps of inventive thought are more like architectonics of composition, or "plots" to Ricoeur (1975), which hold together the thematic aspects of a constantly changing, but at times unpredictable, thought process.

The homuncular functionalism of Dennett (1978) may view monadic qualities as purely illusional, but there is definitely good reason to believe that even though microstructural forms may take on different sizes and shapes, there are still overarching patterns running through our world which greatly influence the path of these smaller transfigurations. Although it is true that there is no way of knowing from the start what concepts the person will finally end up with until they have been worked out by the agent him/herself, still it would appear that whatever is attained by the continuous passage of thought certainly cannot be divorced from a more global schema of meaning. Even though the agent may impose many changes upon things during the course of expression, there are synthesizing links and sweeping insights that permeate the creative process throughout its constant unfolding (cf., Johnson, 1987). As Coleridge suggested years ago, fancy may be mechanical and aggregate in its operation, but imagination is forever organic.²

It is important to note that these synthesizing links are not stereotyped scripts, or Minskyean-like frames, which are intersubjectively shared, but rather personal episodes in an altering, though usually stable, autobiography (Mandler, 1980; Murphy and Medin, 1985). As some have observed (Bandura, 1978; Johnson-Laird, 1983), the creative act is very much dependent upon the structure of the particular embodiment that is negotiating its way through the world. "Thus, how a creator knows precisely which element (color, line, texture, image, melody, harmonic support, etc.) to select and which to reject during the creative act seems answerable only after the fact and then only in terms of our judgment that what was selected works within the finished whole" (Anderson and Hausman, 1992, p. 299).

²Since images are representations that stand free of prescribed meaning, much like physical pictures (as Freud so noted), an imagistic account may offer insight into how underlying processes can stabilize and identify a given moment of phenomenological quality with earlier moments so as to leave the organism with a long term awareness of the position of the body with respect to its parts as well as to the world around (see Pinker, 1980). This might be a ripe area of future inquiry if we are to better understand the creative process.

The fact is that by not taking seriously how psychological factors interact over time and between levels of organization to yield the thoughts and feelings of which we are aware, much of recent thought has failed to deal with the totality of the person and therefore the totality of the creative act. Whereas those who glorify the autonomy of human expression and the spontaneous treatment of form have certainly grasped the intentional and sometimes sudden character of creativity (see Maritain, 1953), they often miss the fact that new schema is not removed from the contributions of past events and that the road to originality must forever pass, no matter how reluctantly, through the province of familiarity.³ On the other hand, whereas causal accounts understand the role that underlying processes play in the genesis of consciousness, they really have little to say about how such processes are interrupted, how meaning is intimately embodied, or how people from time immemorial have managed to go beyond systems and rules to legislate newer worlds (especially those directed toward non-existing objects and events).

If we are to have a more improved and penetrating profile of the creative act, we must come to realize that the act itself is a continuous process of fit and development where intuitions and inferences work together in an "implicate order" (David Bohm's term). A catalogue of perceptions and activities do not add up to you and me. Contrary to those who would deconstruct the self or see it as an aggregate of person-stages (in particular Perry and Derrida; see Perry, 1975; Derrida, 1976), personal identity is a condition of experience, not a by-product. The fact that subjects do not divide their orientation between non-adjacent locations (Gazzaniga and LeDoux, 1978), that catastrophic injuries do not always change and eliminate what is learned (Pribham, Nuwer, and Baron, 1982), and that the disassociation induced in commissurotomy patients is often artificial and fleeting (Marks, 1980), rather strongly suggests that there might be a dynamic cohesiveness or biological integrity at work over and above the parts of one's systematic connection. To be honest, it is difficult to conceive how creativity as modularity (i.e., as a series of "search and alternative" accommodations; Schank, 1988), can take place without there being something already around to see: some type of stable nesting that still preserves the idiosyncrasies of specific events and the general tenor of earlier vision.

To see the created object as an imitation, as Plato did, is surely to sound the knell for Art since the object constructed is always a copy of something

³I do not see this as threatening the thesis of this paper. I would think by now that there is an overwhelming mass of information around to strongly suggest that even the most intuitive level of thought contains enough mediation to roundly subvert any Romantic notion of an unconstrained creative act or a depurated form of immediacy or non-inferentiality. No innovation is completely gratuitous in the sense of being devoid of representational content or totally unconnected to the contributions of past events.

external to it. To see the creative act solely in terms of pre-existing cognitive structures which influence our representation of the world fares no better for it concentrates on just one function of thought — the capacity of the mind to supposedly discover something already inherent in nature. Such a monistic view is potentially harmful for it trivializes the creative act by assuming (1) that we are designed to mediate things according to certain rules, and (2) that conceptual structures are about the world being in a certain way.

There is little doubt that the world plays an important role in our representation of it. However if what we know about the world is not to lie stagnant in a pool of barren assumptions and overly entrenched beliefs then we must come to appreciate that when we deal with what the world is we are still dealing with a very personal enterprise from beginning to end. No doubt people may often be resistant to schema revisions that call into question their core values and beliefs, but it is the “oppositional” or “Janusian” figures of creative thought that often help us resist confinement by driving us toward perceiving the discord in things so that a deeper form of explanation and reference can come to light (see Rychlak, 1991; Rothenberg, 1979). If there is anything like a creative intent it would certainly seem to revolve around alerting us to the pitfalls of an impersonal and algorithmic concept of reality (see Amabile, 1983). When it is successful the creative act often decouples us from the world as extant so that we can intentionally extend reality beyond itself.

We might add here that even though connectionist theories have contributed greatly by showing us how parallel distributed processing can simulate the multiple aspect of creative thought without involving formal operations on symbols, such an explanatory model is not really much of an improvement. No doubt this latest bon ton of thought is more flexible in that it can handle exceptions as well as rules. Yet for all that it does, it still cannot explain how neural states have meaning for their owner or how such a model can deal with the phenomenon of global change.

The fact that no relationship can be sustained that was not already regarded as being well in place kind of emphatically suggests that there is very little room in either one of these accounts for anything fresh or untrod-den. Not unlike steady-state cosmology, or an imperishable pantheistic view, there is no world that can be created here inasmuch as the world appears to be ready-made which anyone, under the right conditions, can stumble upon. The fact is that both cognitivism and connectionism seriously deprive us of a person who has the causal efficacy to scan his or her own mind to seek and bring about that which is not already there.

Conclusion

Recent studies that link creativity to hemispheric functioning (McGallum and Glynn, 1979), limbic activation (MacLean, 1985), or firing patterns of neural circuits (Restak, 1984), have surely contributed much to explaining the hardware element at work which may force a being to be more or, as in the case of brain lesions and anesthetic drugs, less creative. Yet for all these accounts tell us about what cannot be overridden or radically modified, it is doubtful whether they can plumb very far into either the depth or breath of the creative act to explain the play that exists within these regulated processes which allows the person to make choices among alternatives or simply to reject the tradition completely and generate something anew. Harking back to the days of John Watson's problem solving behaviorism, the creative individual in such perspectives would seem to have no extraordinary characteristic which could be called the flowering of genius (as the creative act would seem to be at times nothing more than the rearrangement of previously existing events).

If human behavior is to be something other than what arises out of the organization of physical systems (i.e., an emergent entity), then we must come to realize (1) that what is involved in the creative act is very different from the underlying processes that mediate it, and (2) that the designs and purposes, the feelings and experiences, that run in the individual are components of a more self-organizing base — a totality of dispositional and historical elements with an integrity unto itself. Individuals may no longer be the origin of information, nor do they seem to have the capacity to create matter (although they might be capable of altering neural activity patterns), but the power to break the continuity of structure in an unpredictable way, and then to initiate just as perplexingly a replacement scheme, would still seem to be theirs (whether they use this power or not). In one sense the human subject may be said to reverse entropy through creative energy by constantly striving to impose new order on an ever changing world — a point that I am sure did not escape Henri Bergson's watchful eye when he identified the formative aspect of creativity with the nature of the life-force.

It is hardly surprising to find that with a long list of prestigious attainments behind it science in recent times has been somewhat reluctant about coupling itself with what it considers to be lesser pursuits. The creative act is certainly within the purview of science in that humanity in general is not always an irremediable mystery but often proceeds at times rather lawfully through a succession of re-negotiated balances (although a causal account of what takes place might best be regarded as an organism-environment generalization with a *ceteris paribus* qualifier). If we are to explore our nature and make that nature clear to itself, it is obvious that we should remain open to

more rigorous offerings — ones that would not depart from the data supplied by the particular sciences; and ones that can shed light upon the vital functions, constraints and causal relations that give us an element of commonality with each other and a long range predisposition to act in a certain way.

Yet for those who have a strong scientific penchant to establish a grand unified theory, or to set up a precise criteria for distilling the inherent nature of human actions, it might do well to remember that not every aspect of our behavior can be described in kind terms or can be reduced to those highly specialized structures and systematic relationships that the likes of Gibson and Churchland so cherish. It is true that we can never be sure that we have exhausted all the possibilities, but perhaps the fact that we never seem to be able to capture the true nature of creativity only emphasizes that creativity is resistant to being a species of natural kind and that maybe there is really no nature to be known outside ourselves. It may not be in our power to alter certain constraints that are forced upon us, but it would certainly seem to be in our nature to unmask these unavowed forces, to scan our own activity, to challenge what exists and to bestow life upon those unprecedented forms which do not.

Contrary to Sellar's belief that the "aesthetically interesting" sense can be explicated in purely relational terms, or to Dennett's allegation that intentionality deserves no ontological status, it seems clear that in many ways the emergence of a creative act defies systematic connections and formula-driven methods by having no sufficient condition prior to the agent him/herself. Whether this causal explanation can have a place in science depends upon what we think the scientific enterprise can and should do — although we should not forget that it is one thing to make a contingency claim about those factors that influence our behavior and it is quite another thing to arrive at a correct causal explanation as to how and why a person comes to act.

There is a point where Occam's razor cuts off too much. We surely need taxonomies and a hierarchy of systems if we are to gain insight into particular events and come to recognize the division of labor that helps us perform highly specialized tasks. But if when a person acts, he/she affects the whole causal chain, i.e., if all my bodily parts and mental functions express something of me, then we also need to realize that there is not something in us causing something else in us, but something that we ourselves are doing with ourselves. As we attempt to figure out the kind of thing humanity is, we should not be blind to the complexity of the phenomenon or to the point that in some sense the person is without category and without peer. I say this because with the prospects of a promissory materialism and a machine view of humanity looming more possible every day, it is quite easy to take an anti-foundationalist position that looks upon the distinctiveness of the self as being something, like an atom of sodium, with no intrinsic component over and above the parts of its systematic connection.

The human person is not just a placeholder for talk about subpersonal things like a flowchart of neural circuits, a vector force in Hilbert space, a sequence of DNA base pairs, or an accidental property in a general comprehensive plan. Much like a work of art, the person is a totality of dispositional and historical elements with its own meaning and its own structure. This is not a trivial uniqueness where the aggregation of properties simply make one superficially different from other related tokens. Rather this is a substantial uniqueness where the events that take place are not capable of being defined and considered without reference to the individual him/herself. If we are to understand the creative act, we must realize that any attempt to systematically explain it is greatly limited by the originating nature and essential solitude of its creator. Those who would have us believe that we must go to a level below the individual in order to yield up the secrets that nature provides may find out that they in fact have not gone deep enough. Indeed what lies deep down inside us may be for all intents and purposes what we put there ourselves. Perhaps like natural selection, or Foucault's genealogy, the story of creativity may have to be told in terms of specific individuals and local struggles.

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