

Creativity

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Abstract This paper is an analysis of the concept of creativity. Tradition is followed in distinguishing three related but increasing complex concepts. The first concerns mere making or bringing into existence. It is not examined at length. The second builds on the first but includes the notion of novelty. The third incorporates the second but adds the notion of value. The latter two concepts of creativity are explored in great detail.

Keywords Aesthetic value · Artistic value · Cognitive value · Creativity · God · Novelty

While creativity is and has been of great interest to the general public, artists, psychologists, and scientists, philosophers have accorded it somewhat less attention than the word ‘the.’ There’s some literature on creativity but many gaps and much to be done. In this paper I’d like to reduce that much-to-be-done to a small extent, and probe a little deeper into the concept itself.

Making Do

‘Creativity,’ a noun, is obviously related to ‘create’ and ‘creative,’ the corresponding verb and adjective, as well as ‘creator’ and ‘creation,’ nouns standing, so to speak, on opposite sides of the verb. As far as our understanding is concerned, it’s the verb and the last of the three nouns that are basic. Minimally, ‘to create’ is to make, and a creation is simply that which is made. In this sense, everything a person does that results in a product—construed very broadly, so as to include not just physical objects but mental states and structures (e.g., a line of reasoning), states of affairs (e.g., the table’s being reconstructed), and events and actions (e.g., an avalanche, a dance)—is a creating, and the product itself a creation, the person a creator. While there are interesting philosophical issues having to do with creating, creations, and creativity

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in this, a very minimal sense, they mainly revolve around philosophical traditions which showcase human beings as makers rather than minds—I'm thinking of Vico and those influenced by him here, as well as, to a lesser extent, Dewey and his followers—and they won't be my concern in what follows.

Something New

More commonly, in addition to *making* 'creative' and its kin connote novelty or newness to a less-than-negligible extent. Of course everything made, even the one billionth McDonalds hamburger, is new in the sense of not having been here before and, less obviously, of having a large number of properties nothing else has, even if only trivial relational ones, such as being exactly 45.76295 feet from a man who ran a four-minute mile. Newness in the sense in question goes beyond that, to focus on properties not just unique to the created item but—although this is implicit, as a necessary condition for newness—striking in some way, and of some interest. Here the meaning remains explicitly value neutral, and in this sense I can, like the White Knight, create a new device that's utterly worthless, or piece together a new kind of object which, objectively speaking, is without value, point, or purpose, such as (as I'll call it) a *wewber*, which is a sock, a wallet, and a food wrapper glued together.¹

The complete value neutrality of even this slender notion of creativity might be questioned, however. "Even original nonsense has some merit over received nonsense," Gaut argues, taking issue with Kant, "since it evinces some intellectual stirrings in its utterer, and may even produce some intellectual movement in its hearer."²

² True enough, but only in some cases are the stirrings of positive value. They may bespeak only random thoughts, massive confusion, or simplemindedness in the mind of the utterer—the White Knight being a case in point³—and the intellectual movement in the listener may be, and rightly, only to laughter—as was the case with Alice—or to utter bafflement—as would be the case with anyone who came across the verbal equivalent of my *wewber*.

Still, I think that Gaut is right, though for reasons slightly different from those he advances. In the sense in question, newness requires not just novel properties but ones which are striking and of some interest. To be striking or of some interest is to catch our attention to some extent, or at least to be worthy of doing so, and so to be of at least some cognitive value. Cognitive value, however minimal, is thus being served by newness, and simply in virtue of newness, even in such strange cases as that of the White Knight. Depending on the nature of the particular interest or strikingness in question—*aesthetic, legal, prudential, cognitive, and so on*—other values may well be being served as well.⁴

¹ That a *wewber* is without point or purpose isn't quite right. The inaccuracy doesn't affect anything that follows, however. See [Accidents Will Happen](#) section for a needed qualification.

² Beryls Gaut, "Creativity and Imagination," in Gaut and Livingston, p. 150

³ This objection may be a bit unfair to Gaut. He speaks of evincing stirrings in the creator, and my own argument for the same conclusion, one paragraph hence, speaks of catching attention. I'm reading 'stirrings' broadly, but it's arguable that the concepts we're employing aren't all that different, even if not identical.

⁴ Three additional arguments for the same conclusion, arguments better introduced in a different context, are advanced in [Discovery within Invention](#) and [A Non-Creative God](#) sections. The arguments don't affect what's said in the next paragraph.

But to show as much is not to show much—as Gaut himself says. The value carried by originality or newness alone is relatively small, at least compared to the high premium placed upon creativity in general. If the esteem a judgment of creativity usually carries with it is to be accounted for, something more than the value mere originality carries in its train is needed.⁵ An explicit conceptual component concerning value will have to be added, thus yielding a third concept of creativity.⁶

Quality and Quantity

As already may be obvious, however, even this second concept of creativity is far from being as philosophically insignificant and uninteresting as its bland specification and my absurd example may make it appear. One question it invites is what the criteria for less-than-negligible are. A device with only one, and a relatively minor, new feature, such as an electric can opener with different material glued to its base, to make it more stable, isn't creative or a product of creativity, and even adding a few more features of the same ilk, such as an inner lining that cuts down on noise and a more durable and flexible electrical cord, would make little difference. With minor changes, only if the number of differences is less than negligible is the criterion of less-than-negligible satisfied, though that, of course, is just to go around in a circle. Number isn't always that important anyway: a few changes, even a single change, if it's new and highly unexpected, is enough in some cases, just as, as in the sorts of cases just noted, many may not be enough. As idiotic as it is, a new feature is original and creative in the sense in question, not so much because the number of new features is high, but because they're unexpected.

In general quality is more important than quantity as far as differences are concerned. And the echo of Mill here is apropos. The number of new features is of less significance than a determination, necessarily a context-sensitive one, of the qualitative significance of new characteristics or features. Painting peasants in a field, rather than members of the royal court in a palace, could, by itself, count heavily toward a judgment of newness and creativity in one context, and be insignificant in another.

And 'another' could be in the offing. With newness, in fact, this isn't just possible but inevitable, since the concept is inherently relational and historical. Yesterday's revolutionary development is today's standard feature and tomorrow's quaint antique. Conceptually speaking, newness mocks the meat it feeds on: what was novel becomes alms for oblivion, scraps of deeds past which are devour'd as fast as they are made, forgot as soon as done—note that I'm speaking about the nature of the concept here, not the behavior of people, and my implicit context for judgments of newness is the social arena.

⁵ What's needed is the addition of an independent and explicit conceptual component, *being of value*, thereby generating a third notion of creativity. See [A Value-Added Concept](#) section.

⁶ The third concept of creativity will be discussed below, in [A Value-Added Concept, Instrumental Value and Others, Problematic Products, Not Exactly, Originality and Value, The Aesthetic, The Artistic, Committed to an Institution and Degrees of Difference](#) sections

An Unexpected Development

In the sense in question, newness also includes the unexpected, not just the ‘hasn’t been seen before.’ With newness there is a leap of sorts, no glaringly obvious relation to what preceded, even if what is new need not come completely out of the blue. It may be new lamb chops served at a roadside inn, new in never having been prepared by the cook or served before, but there’s nothing unexpected about their appearance at the table or their taste upon serving. In fact, as already hinted, the unexpected is one of the principal factors which sets the criteria for how many features are needed for a less-than-negligible difference, as well as which features count, and with what weight. Unexpectedness is thus the primary gauge of quality. Assembling a wallet, a sock, and a food wrapper into a new combination counts as making something new largely because the combination is so unexpected. And note also that, the unexpected being a psychological concept, a judgment of newness is thus subjective, in the sense of being at least in part a mind-dependent determination. Even more strongly, it’s a deeply mind-dependent determination, in that it depends not just on mental states, and especially beliefs, but, as some of the examples above and many below illustrate, on the particular content of those mental states, and on that content at a particular time.

Going one step further down essentially the same line, the unexpected itself isn’t just what isn’t expected. I don’t expect the next car I see to be red, but when I next see a car and it’s red, its being so isn’t unexpected. In the sense in question, the unexpected must surprise to some extent, be positively contrary to one’s expectations or beliefs about what will be encountered. More exactly, it has to contravene either one’s beliefs or one’s dispositions to believe. I may have never formed the belief that there are no chartreuse opossums, but in coming upon one I would be surprised because, given my other beliefs, I had a strong disposition to believe there are none. In any case, unexpectedness comes in degrees—things can be more or less unexpected, more or less surprising. That’s good, because newness or novelty is also a degree concept, and so is creativity.

Reinventing the Wheel

But unexpected by whom? New to whom? The two most plausible answers are, the creator himself and, put loosely, the general public or some selected segment thereof, perhaps averaged over, normalized, or idealized in some way.⁷ Which answer is meant, which concept of creativity is in question, depends on which direction we’re looking in.

To explain: generally speaking, batches of interrelated concepts are grounded as much as possible on what is inter-subjectively available and stable. With creativity that means that *creation* is the concept to begin with. Categorizing the bringing of something into existence as a creating or as creative involves starting with the product, the would-be creation, and delving into the process that gives rise to it; and similarly,

⁷ In “What Is Creativity?” Margaret Boden (1994) draws a distinction between historical creativity (H-creativity) and psychological creativity (P-creativity). In some respects, her distinction is similar to the one drawn below between group-relative and person-relative creativity. However, Boden’s concepts of H- and P-creativity are couched in terms far too strong to be acceptable, though the point won’t be pursued here.

categorizing the being who brings it into existence as a creator, and the operative force as creativity, is going back still further to the person and the traits and mental states responsible for the creation.

As far as judgment is concerned, then, we start with a (conceptually primary) object in the public realm⁸ and look (among other things) to see whether criteria for newness, such as unexpectedness, are satisfied. If we stay in the arena of the publicly available, if we continue to look ‘outward,’ the answer to the question ‘Unexpected by whom?’ (or ‘New to whom?’) will have to be ‘Unexpected by them, the public’ (or ‘New to them, the public’).

Not surprisingly, this, an objective notion of the creative—really, an inter-subjective one—is prevalent in the social sphere. What is unexpected, original, or new is relative to what the relevant community, or perhaps the relevant extended community, has seen before. When matters of practical and relatively formal concern are in question, such as in the law, this is bound to be the case. A patented item, for example, must be new and must incorporate features that make a difference to a less-than-negligible extent; and what is new must be something ‘non-obvious,’ meaning unexpected, not readily predictable. Criteria for the unexpected here, as with copyrights, trademarks, and intellectual property in general, are thoroughly public. If someone gets there first with, say, a new disk drive or a piece of software, then even if a second person working independently of the first comes up with the same a few days later, unexpectedness and newness would be lacking in the eyes of the law, and no patent would be issued.

The same holds outside of the law, in the sciences, mathematics, and other areas in which there are well-anchored public institutions, strong traditions of practice, and fierce competition to be the first—the first to develop solid-state rocket fuel, the first to prove the four-color theorem, the first to synthesize seaborgium. Even in very informal social contexts, this usage of ‘new,’ ‘original,’ and ‘unexpected’ is common. A friend of mine once invented new, better-looking, and more comfortable handgrips for bicycles, the likes of which I hadn’t seen before and haven’t seen since, but the grips didn’t rise to the level of patentability or attention by the law, or even other, less formal social institutions. Even so, if a second person were to come up with essentially the same set of handgrips, the laurels for newness and creative achievement would be awarded my friend alone. When it’s the public arena we’re looking in, timing is, if not everything, at least a necessary thing.

Newness and unexpectedness aren’t relative to the whole of previous history, however, or every prior human achievement. What is new could have been seen before, in fact, many, many times before. Some 10,000 years ago, by some estimates,⁹ the wheel came on the scene, a new, an unexpected, a very great creative achievement. It wouldn’t cease to be such if the theory of eternal recurrence were true, or if distant human history were punctuated with bleak periods in which every human accomplishment was destroyed, lost, or forgotten, but the wheel had rolled around in several of the brighter ages. Strange as it may

⁸ In all but derivative cases. In certain cases, which will be briefly discussed in *It’s All in Your Mind* section, there may be no public object.

⁹ The exact date of the wheel’s invention is a matter of conjecture and, to some extent, dispute. Some archeologists set the date at about 8,000 BC, which is what I opt for here. The earliest known wheel dates from about 3,500 BC, however, and other archeologists think its invention much closer to 6,000 years ago. Since historical accuracy isn’t needed to make the point in the text, the issue needn’t be lingered over.

seem, re-inventing the wheel is possible, and the occasion would be just as momentous the second, third, or even one millionth time around.

Getting Personal

On the other hand, if we begin with the object and look in the other direction, the direction of its birth, then the creator and creativity come very much to the fore. In the main, newness and the unexpected are then relative to the individual and his/her history, that is, to the particular beliefs, prior experiences, values, capacities, knowledge, intelligence, and so on of the person in question. An object that, on the basis of purely public criteria, is only slightly or perhaps not at all new, unexpected, or creative could be so in spades on the basis of such person-relative and subjective criteria. Man number two's independently coming up with, say, the microwave oven, could reflect far greater creativity on his part than on man number one's part, especially if man number one had worked in the research and development department of a major corporation for years, and man number two learned electronics on his own and worked in isolation, by himself, for only a short time.¹⁰ On the criteria in question, man number one's creative achievement is noteworthy, but man number two's quite substantial.

The converse could also be the case, though: by public standards, a creation could be quite new and unexpected, while by person-relative standards not impressive. A stunning advance, what public criteria would regard as a work of creative genius, could be humdrum, only a little if at all unexpected, if the creator were God,¹¹ an *Übermensch*, or any being far superior to us. More controversially, the same might be true of someone of our own ilk who had traced a far steeper developmental curve than we have. A real-life 18th-century Robinson Crusoe, who, by dint of effort over many years, became adept at devising new and useful firearms, might invent a rapid-fire, multi-shot, four-barrel musket that, relative to 18th century British society and its weaponry, is a tremendous advance but of small significance relative to his intelligence, prior experience, and knowledge. Nor need an individual be isolated from general society for this to be the case. Leonhard Euler's mathematical creativity was barely exercised in solving the Königsberg Bridge Problem, yet his proof was novel and unexpected by society's standards, and even by the mathematical community's.¹²

Person-relative standards for novelty and unexpectedness aren't through-and-through person-relative, however. The creator can't himself set the standards for person-relative novelty, unexpectedness, and creativity. Even if I'm crazy or narcissistic enough to think otherwise, my drilling a hole in the handle of a shovel so that it can be hung up high above the floor in the garage (thereby saving floor space and removing clutter) doesn't result in anything new or unexpected in the person-relative sense. The

¹⁰ As this example illustrates, age, experience, and prior training usually wax and wane together. They could split apart, vary independently, though cases illustrating as much won't be explored here. What such cases show is that, as with judgments of newness in general, a variety of disparate factors need to be taken into account in rendering a judgment of 'creative' or 'not creative.'

¹¹ But there are problems respecting God's creativity. See *A Non-Creative God* section.

¹² That remains true in spite of the fact that, as happens fairly frequently with notable creative advances, afterwards people soon say, "It's so simple! I could have done that!"

standard for newness and unexpectedness (and so creativity) is relative to the person, but the standards for determining whether that standard has been met aren't relative to the person. I can't make them up as I go along, or even once and for all, deciding in all sincerity, for example, that putting a thread through a pair of blue jeans amounts to creating a new item of clothing. Although of necessity somewhat vague, socially determined standards rule even here, in the realm of person-relative unexpectedness and newness.

Is either of these two concepts of unexpectedness and newness (and so creativity) more important or preferable than the other? In general, the obvious answer is the correct one: No, it depends on what's of interest. If it's creativity as a public phenomenon, then the first concept is more important; if it's creativity as a personal achievement, the second is. Greater attention has been paid the first than the second in philosophical circles, however, while the opposite is the case in psychological circles.

Accidents Will Happen

Besides the elements discussed above, there are other important components of creativity, even in the value-neural sense, and irrespective of whether it's group-relative or person-relative creativity that's in question. What's created can't be created by completely by accident, wholly unknowingly, or without any ingenuity, but must, in the creating itself, be aimed at (in at least a general way) at some point, involve some relevant knowledge, and be informed with pertinent ingenuity. Scooping up a number of electronic components and throwing them in the air in frustration is no display of creativity, even if the result is the first transistor radio. Creations are artifacts, not in the weak sense of whatever results from human action, but in the stronger sense of an aimed-at product whose production involves the use of knowledge. Usually what's aimed at is aimed at right from the start¹³—I set out to create a form of artificial indoor lighting powered by electricity, for instance—but creation does allow for a fair amount of the fortuitous, and the aiming-at can occur anywhere from the beginning to near the end, and perhaps even, although in a much atrophied sense, post-facto. While improvising for the fun of it on the piano, I might gradually realize that I'm playing the basic theme of a new musical composition, and then intentionally set to work to complete it, eventually succeeding. Or, in an effort to develop a drug effective in combating multiple sclerosis, I might discover that it has little effect on ms but helps in the relief of migraine headaches. Proceeding from there, I might redirect my research to develop an effective and safe dosage of the drug for migraines. More radically, after experimenting with radiation and photographic plates with no clear purpose in mind, a budding 19th century physicist might repeatedly x-ray his hands and feet, and only the next day, after the plates are developed, realize that he had photographed his phalanges.

The border between invention and discovery is straddled in the last case, with the photographs lying more in the territory of discovery than invention. The artifact was made by the physicist, and thus invented in at least that sense, but with no knowledge,

¹³ This is why, in being deliberately fashioned, even a *wewber* isn't completely without point or purpose, and the remark in [Something New](#) section slightly inaccurate. Presumably, the point or purpose of making a *wewber* is simply to make one.

little ingenuity, and not even a hazy objective in mind; and the unexpectedness is akin to that of a person finding a hundred dollar bill that dropped out of his pocket the day before—even though he didn't know it was there at the time. Compare, in this regard, the unexpectedness of finally coming up with the perfect combination of notes needed to round off a musical passage, and the goal-directed, knowledge-driven, and ingenuity-informed activity needed to complete the task. If there's creation in the case of the x-ray photographs, it's in a much weakened sense of the term.

Try, Try Again

What of trial and error that results in something new? Can it be creative? Novitz cites the case of Charles Goodyear adding in, in a series of experiments, a wide variety of substances with liquid rubber in an effort induce vulcanization. After many unsuccessful attempts, including one that involved cream cheese, he tried sulfur and succeeded. The procedure was too pedestrian, ordinary, and banal, too lacking in anything clever, beautiful, delightful, or interesting, to count as fully creative, though, according to Novitz.¹⁴ On slightly different grounds, Gaut agrees, arguing that Goodyear's procedure is a mechanical one, and so not creative.¹⁵

I wouldn't go quite that far myself. While I agree that if a person doesn't know what he's doing at all, and displays no ingenuity in the process of coming up with or making something new, that something isn't a creative product (see two paragraphs back), I have my doubts about this particular case, one, incidentally, very similar in certain respects to Edison's invention of the light bulb.¹⁶ Goodyear (i) was trying to create vulcanized rubber (not, e.g., a novel flavor of ice cream), (ii) started with rubber (not, e.g., water), (iii) heated it (that is, didn't freeze it, expose it to a full moon, or recite a magical incantation over it), (iv) controlled the conditions of his experiments (that is, paid attention to and regulated temperatures, ratios of substances, and so on), and, although he grew desperate at times, (v) didn't throw items in with the liquid rubber in a completely arbitrary manner (e.g., he didn't make an alphabetical list of furniture and try adding beds, chaise lounges, and end tables one by one). He also (vi) knew when he had succeeded. In short, even if he had scant knowledge of how to vulcanize rubber, he knew what he was doing to some extent and displayed at least a little ingenuity. Because his work wasn't particularly clever or informed with an impressive amount of knowledge, because he did a lot of guess work, his was a minimally creative achievement. As everyone agrees, though, creativity comes in degrees, and my point is simply that the degree isn't zero in Goodyear's case.¹⁷

¹⁴ David Novitz (1999), "Creativity and Constraint," pp. 74–75; David Novitz, "Explanations of Creativity," in Gaut and Livingston, p. 186, 190 n.14.

¹⁵ Bernard Gaut, "Creativity and Imagination," in Gaut and Livingston, p. 150.

¹⁶ I'm drawing upon memory here, but as I recall Edison grew desperate in his attempt to develop a filament for the light bulb, and at one point went outside his lab, scooped up some mud, and molded it around a carbon thread into a filament.

¹⁷ As Novitz, if asked, might agree. He says that Goodyear's achievement wasn't "fully" or "radically" creative, which allows room for its being at least minimally so.

A quick aside. What few realize is that the flip side of ‘too little knowledge diminishes creativity’ is also true. Conceptually speaking, too much knowledge can be even more destructive. More on that below, in [A Non-Creative God](#) section.

Discovery within Invention

To return: the invention/discovery distinction invoked several paragraphs back draws the line, in however preliminary a way, between what is and isn’t our contribution to what’s in the world. It marks the boundary, in other words, between convention—or, better, artifact—and nature—or, better, natural object. A creation falls squarely on the side of our contribution, and thus is an invention, but creation, seemingly paradoxically, also wraps discovery in its folds in a secondary but essential way. Mere making involves no discovery, meaning that it doesn’t eventuate in finding out (or finding) something new, but creation does, and in two ways. First, being in an important sense something new, a creation is perforce discovered upon completion. There was nothing quite like it before, so in coming to know it, I come to know something new. Second, there’s discovery in the very making itself. Whether the actual making is laborious and achieved only after lengthy trial and error tempered with critical feedback (like Goodyear’s vulcanization of rubber), or accomplished with the ease of a summer stroll (like Mozart’s composition of many of his pieces), there’s a finding out of ‘how this is done, how this comes about’ in the process itself—that is, a discovery of how a new kind of thing, with its new properties, comes to be and have the properties it does. Conceptually, this discovery is ‘read back,’ of course, for it’s only in virtue of the new end product that we can speak of the making of something new (in the sense in question), and thus of discovering how the something new results or comes about. Still, this is a learning, a discovering how, that’s inherent in the act of creation.

The earlier argument for creativity not being value neutral,¹⁸ even in the supposed value neutral sense, can thus be bolstered with two additional arguments, both of them concerning cognitive value.¹⁹ At least when it comes to creative making—but not, it seems, when it comes to mere making—Dewey’s pragmatism has something to say for it. Knowing and making, the theoretical and the practical, may always be conceptually distinct,²⁰ but they aren’t always really distinct.

Creating always involves discovering, then, but the converse, discovering involves creating, holds in only some cases. The discovery of gold at Sutter Creek involved no creativity, but the discovery that arithmetic is incomplete certainly did. When discovery requires no more than noticing, creativity plays no part, but at least sometimes discovery requires the sort of ingenuity associated with creativity, for example, in devising test conditions for a highly theoretical hypothesis in physics, or in constructing a makeshift device to peer into a room in which a burglar is hiding. Speaking of

¹⁸ See [Something New](#) section.

¹⁹ I should note, though, that even if all three arguments, plus the one advanced in [A Non-Creative God](#) section, are cogent, the cognitive value of creativity in the ‘value-neutral’ sense is minimal. The creation of my weber is a case in point.

²⁰ Though Dewey, as I read him, would deny even that. For him, there are no distinctions of deep theoretical significance, only ones of local significance-in-use, that is, significance in a specific context, for a specific purpose.

discovery in the sense in which what is discovered is, or at least is taken to be, a natural object—e.g., gold, a law of physics, a truth of mathematics—means that one and the same thing can't be both created and discovered. What is discovered is the truth of the law or mathematical theorem; what is created is the means to discover it, the experiment or proof.

A Product with No Guarantee

Sticking with the view that discovery, and especially discovery/learning-in-doing, is essential to creative activity has its price, though, as does, what isn't so obvious, sticking with the view that creativity involves goal-directed activity, aiming-at in doing, in some form or other.

Consider the latter first. As explained above, the particular objective of creative activity is sometimes present at the start and remains intact throughout the process of creation, sometimes not present at the start but develops as the process continues, and sometimes present at the start but changes over the course of time. More variants are possible of course, but the important point is that in each case there's an aim but no a priori guarantee that it will be reached, or even can be reached. There can be psychological assurance and, if the creative task is a simple one, a 'for all intents and purposes' guarantee, a practical guarantee; and foreknowledge is also possible if it requires no more than an adequate empirical justification. None of that is in question. Rather, the point is that we can always fail—good minds, even highly creative ones, can do their best and come up with nothing—because the concept of creative activity requires a gap, an epistemic if not metaphysical gap, between where we are and where we aim to go, and no a priori guarantee that that gap can be bridged. If there were an ironclad, a priori guarantee of success, there would be no gap, but that could be only because the product already exists. There would be nothing new in that case, however, and thus no creation.

To emphasize and illustrate the point just made, this isn't to say that a well-grounded and true prediction in 1991 of the creation of a hard drive with a gigabyte of memory means that, when that hard drive is invented, it isn't a creative product. It certainly is. Complete knowledge of the constitution of a one-gigabyte hard drive in 1991 would preclude its being a creative product in 1997, of course, for then the creation would have taken place in 1991, and newness would be lacking in 1997. My point is different, and conceptual: creative activity requires that something be aimed at, and that it be a new thing; and that requires the possibility of failure. If there is no possibility of failure, then the 'new' thing already exists, if only in the mind of the creator, and so can't be created.

It's All in Your Mind

Note the 'in the mind of the creator' here. Creation in the primary case occurs only when there's a publicly available object of some kind, an artifact in the usual sense of

the term. In derivative cases, however, a ‘private object,’ a plan, of necessity a relatively complete one, in the creator’s mind will sometimes do.²¹ Thus the proof of a new theorem in mathematics can be a creative product even if nothing has been said or written, even if it exists only in the mind of the mathematician. In the primary case, though—and I call it such because the concept of creation, whether person-relative or group-relative, is grounded in the public realm, in an artifact as normally understood—a new, creative proof requires inter-subjective accessibility. A proof that exists only in the mind is an artifact, and therefore a creation, only by a conceptual extension of the term—a natural and reasonable extension, but an extension nonetheless.²²

In some cases, in fact, we’re not willing to hold out our hand. A revolutionary new painting that exists only in the mind, no matter how detailed, is no artifact, and so no creative product. As these cases suggest, willingness to extend ‘artifact’ and ‘creative product’ into the private realm depends on the extent to which material realization is essential to the kind of thing in question, or, better, the extent to which material realization seems essential to our knowledge or understanding of what is novel or important in the kind of thing in question (even if, as in the case of the mathematical proof, we never actually know or understand anything). Proofs being propositional or epistemic structures, the extension of the term is readily granted; paintings being, or at least necessitating, material realization to know what is novel or important about them, the extension isn’t readily granted; electronic circuit designs being abstract objects as far as our epistemic traffic with them is concerned, the extension is again readily granted. Musical compositions are an interesting case, differing, as I see it, markedly from paintings. Even if experienced only as series of sounds in the composer’s mind, they qualify as artifacts, since knowledge or understanding of them, and of what is new in them, doesn’t require a public object.

A Non-Creative God

But that’s a side issue as far as the main point is concerned. The point that needs to be emphasized is that there’s a price to be paid for the argument of [A Product with No Guarantee](#) section: contrary to the received view, God’s creative activity is not only not the paradigm of creative activity, it’s not creative activity at all. There’s no possibility of failure for God; His willing something to be is metaphysically sufficient for its coming to be. With no possibility of failure, there’s no gap between aim and realization, and so no creativity. God can bring things into existence—if traditional theism is correct, the things we see around us were brought into existence by Him—but that’s creating only in the first sense of the term, the one distinguished back in [Making Do](#) section. And even mere ideas that would count as artifacts for

²¹ This is possible even with group-relative creativity. What’s of paramount importance with that notion is what other people have come up with in the past, and who’s first to the finish line. Strictly speaking, a public object isn’t needed for that. That’s true even if in special contexts, such as the law, it may be, as an added requirement.

²² A hand detached from a human body is a hand only by an extension of the term, Aristotle says. But that’s still to say it’s a hand.

us—pieces of music, for example, or electronic circuit designs—don't for God, for even with them there's no gap between willing and realization. Such ideas have, at any point in time, already existed for eternity in God's mind, and so no willing, even that involved in thinking, is needed to bring them into being. God's nature thus precludes the possibility of creativity in the sense in question, a point which underscores how deeply anchored the notion is in us, in all our frailty, with all our limitations.

The same conclusion follows from the fact that learning and discovery are essential to creativity. From eternity, God has known everything that can be known, including the complete nature of, and every fact about, every possible object that we could create. We may have never seen anything like a proof of the Goldbach Conjecture, and may be able to envision it only in a general way, but, assuming there is such a proof, God has known it in all its complexity from time immemorial. Hence, God's omniscience also precludes His creating anything in the sense in question.

Knowing nothing about what you're doing in bringing something into existence is incompatible with creating it, then, but so is knowing everything about it from the start. In being a concept very much tailored to us, *creativity* necessarily fails to apply both to beings without the ability to get from where they are to a new place—for example, inanimate objects, plants, and most animals—and to beings for whom no place is a new place—God being the primary case in point. Its limits are shaped for beings like us, beings with the potential for moving on, a potential which may or may not be realized. That's why ingenuity, resourcefulness, or cleverness—cognitive concepts which connote less than full knowledge or understanding, but some knowledge or understanding, and the potential for going further—are essential to creativity, and why feedback mechanisms are so very, very common in creative activity, though not conceptually necessary. It's also why creativity has yet another cognitive value nestled within it: the employment of ingenuity, cleverness, or resourcefulness is inherent in creative activity, and the exercise of such traits is a *prima facie* cognitive good.²³

A Value-Added Concept

Just as the second concept of creativity builds on the first, adding to it, so a third builds on the second, adding to it. What it adds is an explicit valuational component: what is creative must be of value, with the value in question being independent of any value that rides on the back of newness or ingenuity as such. When people think of creativity, it's usually in this sense of the term.²⁴

This concept of creativity places no restrictions on the kind of value it incorporates—cognitive, legal, economic, moral, aesthetic, or any other will do. It does restrict value in other ways, however, according to Novitz. A creation must be “intended to be, and... either actually or potentially [be], of real value to some people,”²⁵ he says, with “real

²³ See Note 19.

²⁴ Many of the examples of the previous sections concerned creative products that had value independent of the cognitive values inherent in the making of something new and unexpected. The examples were chosen purely for the purposes of easy of illustration and ready comprehension, however, and the independent value played no part in the points made.

²⁵ Novitz, “Creativity and Constraint,” *op. cit.*, p. 77; “Explanations of Creativity,” *op. cit.*, p. 184; 194 n. 15.

value” here meaning positive instrumental value. Three constraints are thus proposed by Novitz: the value must be positive, it must be instrumental, and it must be intended.

I have my doubts on all three counts.²⁶ The Death Star in the original “Star Wars” movie was certainly the product of creativity, and it would have remained so even if using it had brought about the end of the universe. In that case, its instrumental value would have been negative or destructive—Novitz prefers the latter term—and so the weapon, on Novitz’s view, not a product of creativity. That’s highly counterintuitive. So is the implication that whether the Death Star is a product of creativity depends on what it’s aimed at: a comet about to crash into the Earth, or the citizens of the Earth.

Aware of this objection, Novitz takes the high ground and argues a priori. There’s a contradiction in the conjunction of the valuational components of ‘creative act’ and ‘destructive act,’ he says:

“No act can be both destructive and creative... because both concepts have an ineliminable but mutually exclusive evaluative component. Creative acts are valued positively because they are intended to, and have the potential to, satisfy actual human needs and desires. Destructive acts, by contrast, are valued negatively because they malevolently thwart and confound human needs and desires.”²⁷

But even with creations that have positive value, not all are “intended to satisfy actual human needs and desires.” Some, the airplane, for example, are intended to awaken us to new possibilities and new aspects of value, and create new needs and desires. That minor point aside, it doesn’t seem to be a conceptual truth, or even a true empirical generalization, that creations are valued highly. Some aren’t, even by some of the people who use them—I’m thinking of the television, refined tobacco, and video games, among other things. But even if Novitz were correct about this, it wouldn’t be to the point. The issue isn’t whether *being positively valued* is universally true of things regarded as creations, but whether *being of positive instrumental value* is, and necessarily. What needs to be shown is that ‘This is a creation’ and ‘This is of negative instrumental value’ are contradictory. Novitz doesn’t show as much, common usage tells against him, and the only way to prove the point is, in effect, to do what he veers toward in the above passage, namely, assert the conclusion as a premise, thereby begging the question.

²⁶ As well as on a number of other details of Novitz’s definition. For instance, Novitz says that a creative act is “an intentional or chance recombination of existing clusters of ideas, techniques or objects” (“Constraint,” p. 184; “Explanation,” p. 184.). Chance alone won’t do, as some of my earlier examples and cases brought up by others show. Amending the definition by adding that the act must be of intrinsic value, as Novitz later does (“Explanation,” p. 194 n. 15), doesn’t help matters. The value in question, with either a chance or an intentional act, might be moral value, aesthetic value, or even a cognitive value that has nothing to do with the value of the creation. Throwing the electronic components of [Accidents Will Happen](#) section up in the air, with them, whether intentionally or by chance, falling down in an aesthetically pleasing manner, whereupon they form the first transistor radio, doesn’t make for creativity. More importantly, creating doesn’t have to be recombining or rearranging what’s already around. If we assume that matter-energy can be neither created nor destroyed, then any creation that’s a material object is a rearranging in some extended sense of the term. Even so, (1) an artifact may have causal effects or emergent properties that nothing ever had before, and if the creation is those effects or properties—e.g., anti-gravity waves—then some creations aren’t rearrangements in any narrow sense of the term. (2) Many creations that aren’t material objects aren’t rearrangements at all, even of concepts. Cantor’s diagonal argument, for example, is something new under the sun, and not just a rearrangement of what was around before.

²⁷ Novitz, “Explanations,” op. cit., p. 186.

To speculate a bit on the source of the problem here: the claim that “it is a conceptual truth that creative and destructive acts exclude and need to be distinguished from each other”²⁸ might be based on three unstated, perhaps unconsciously held propositions, all of them true and together seemingly entailing the conclusion in question. One proposition is empirical, the other two conceptual. The empirical proposition is that the great majority of creations, in the value-laden sense of the term, are things of positive value, and the word ‘creative’ has acquired a strong suggestion—in the literary theorist’s sense, a strong connotation—of positive value. The first conceptual truth is that, as such, destruction is *prima facie* of negative value. The second conceptual truth is that one and the same act can’t be a creating and a destroying. If we combine the three, taking them all to be necessary truths, the result is basically Novitz’s view that the valuational component of ‘creation’ precludes an act from being both creative and destructive, or having negative value. Properly understood, however, the conceptual truth that one and the same act can’t be a creating and a destroying has nothing to do with value. It rests on the simple fact that creating something is bringing it into existence, and destroying it taking of it out of existence. One and the same thing can’t be both created and destroyed at the same time; one and the same act can’t both bring a thing into existence and take it out of existence at the same time. Any act that did both would be ‘contradictory.’ That, however, says nothing about whether ‘creation,’ in the value-laden sense of the term, must incorporate a positive valuational component.

Instrumental Value and Others

More briefly, the value of a creation needn’t be instrumental. A proof constructed for the sake of the acquisition of knowledge or the exercise of rationality is of intrinsic value, and could be a creation in sense in question. In point of fact, many proofs (and propositions proved) in semi-group theory, for example, have no instrumental value at all, no application outside the realm of pure mathematics, a fact that delights at least some of the people working in the field.

Finally, there’s no need for a creator to intend that his creation be of value to others, even potentially. (Novitz speaks of “being of instrumental value to some people,” which I take to mean at least one person other than the creator.) In creating his new musket, the Robinson Crusoe of [Getting Personal](#) section might well think that rescue was impossible, and intend nothing respecting the use, or even potential use, of his firearm by others. Creators might even deliberately intend that others not benefit from their labors, as Kafka purportedly did in ordering that his manuscripts be destroyed after his death. The normal case is indeed one in which benefiting others is intended, but a normal case isn’t a necessary condition.

Problematic Products

The existence of a product of value isn’t enough to ensure creativity, however. A person might create *x*, in the second of the senses distinguished above, and *x* might be of

²⁸ Ibid.

value, even tremendous value, yet creativity not be exercised. Suppose, for instance, that with no more of a purpose in mind than I had in making my wewber, I create an extremely large walweber, an object consisting of many, many odd physical objects dovetailed, glued, stapled, welded, and so on together. After my death the walweber's gradual decomposition releases gases into the atmosphere that combat global warming and otherwise have no ill effect on human beings or the environment. My walweber would be of positive instrumental value, yet not be creative, in the sense in question, and no creativity would have been exercised in making it.²⁹ A value has to be aimed at as well as realized.

That's not sufficient, however, for much the same problem arises if the value realized is very different from that aimed at. If I write an original treatise intending the creation of a tome of great cognitive value, my book might actually be no more than a tissue of confusions, but still be effective in inducing sleep or laughter, both of which have instrumental value. The problem is that there's a discrepancy between the value I was trying to bring about and the value actually brought about.

But absence of a discrepancy isn't enough either. Aiming to create a work of great aesthetic value, an artist might accidentally tip over a number of cans of paint, with a work of great beauty thereby resulting. There's no discrepancy between the aimed-at and the realized value of the object but no creativity either, because no connection between the two.

Adding a causal connection won't solve the problem. An original but artistically worthless picture showing the horrors of flooding, and intended by the artist to be instrumental in bringing about the construction of a dam, might actually bring about the construction of the dam, and thus be of instrumental value. It might have that effect, however, because it was used to bludgeon to death a powerful political leader who opposed building the dam. Slightly less fancifully, I might paint a picture with the aim of creating an object of great aesthetic worth, and, despite the fact that I have no artistic ability, succeed. My success might be due to the fact that after I finished, placement of the painting in a hot, sunlit room made the oils run and colors fade. In each case, the valuational aim is causally connected to the existence of the painting and/or the painting's properties, but creativity is lacking.

This isn't a problem confined to creativity. It also dogs causal analyses of knowledge, perception, reference, and intentional action. The causal chain that leads from fact to belief, object to perceptual experience, object to term, or intention to action, might be wayward or improper in some way, taking a course or incorporating elements that preclude knowledge, perception, reference, or intentional action. The route from valuational aim to valuational achievement may not gang aft a-gley, but it too is subject to such misdirection.

What to do about it isn't clear. As far as causal theories of reference and knowledge are concerned—and attention has focused on them more than anything else—various qualifications have been proposed, with some being complex almost beyond human comprehension. To those not sympathetic to causal approaches in general, the situation is reminiscent of Ptolemy's epicycles within epicycles: an indication that a wrong turn

²⁹ In this and the cases that follow, it could be held that the product is creative, but creativity hasn't been exercised. This is to sever the link, assumed throughout this paper, between 'creative product' ('creation') and 'creativity' in any one sense of the term. If the entailment of either of the concepts by the other is to be preserved, close attention has to be paid to the relation between the person and the creative product.

has been taken and a sign that philosophical faith, rather than intellectual integrity, is at work. That's hardly clearly the case, however.

As far as creativity is concerned, one quick way to remedy the defect is to add that the aiming-at is connected with the realized value 'in an appropriate way.' This takes care of the problem without addressing it, however, and threatens the analysis with circularity: independent of the fact that that it doesn't preclude creativity, there's no indication of what an appropriate way is.

A better suggestion, but one that leaves a lot to be done, is to retain the general requirement of a causal connection, but to shift the focus of attention from the relation between the aiming-at and the realized value to the relation between the creator and the realized value. In short, the idea is to add (to the other conditions) that the creator is responsible for the value realized. This is passing the buck to personal responsibility, another difficult notion, and tossing a normative or quasi-normative element into the mix, but it does have a number of advantages. First, it avoids both the complications and controversies of pure causal analyses. Second, it orders attribution in the right way, in that *creativity* and *creative act* are concepts predicated of persons, not states of persons, such as aims or intentions. Third, at least prima facie, personal responsibility accounts for the presence or absence of creativity in the kinds of cases in question: it's what absent in cases in which there's a causal connection but no creativity, and present in cases in which there's a causal connection and creativity. And fourth, it solves the problem without circularity—but at the cost of leaving a difficult notion unanalyzed, at least in this context.

That problem aside, the analysis still isn't adequate. A person could aim at a value, the product have that value, there be a causal connection between the two, and the person be responsible for its having that value, yet creativity still be lacking. Greatly admiring the work of P.G. Wodehouse, Wilfrid might set out to write a farce, aim at humor, and write a book which is humorous, but only because it's so inept in its attempt at an inimitable style, absurd characters, and complicated plotting. He would be responsible for its humor, but not in the way he wanted to be or thought he would be. To be creative, Wilfrid would have had to know that he was bringing about the value in a certain way, the way he wanted or envisioned.

Not Exactly

Perhaps adding a clause to the effect that knowledge of the sort just mentioned is present will take care of the last of the problems of [Problematic Products](#) section. Whether that's so, however, there are other problems to be reckoned with.

A relatively minor one concerns how exact the match must be between the value aimed at and the value realized. A creative surgeon might aim at saving 1000 lives, the upper limit he thinks his new surgical technique has the potential for, but it could save 2000, 10,000, or 1,000,000 lives without jeopardizing his creativity. Nor, on the other hand, does aiming too high always count against creativity. If the surgeon's technique had the potential for saving at most 700 lives, and he thought 1000 the likely number, he would still be creative. Even a gross overestimation would seem to affect creativity but little. If the technique had the potential for saving only one life, and he estimated 1000, creativity might suffer a bit. Even in this case, though, creativity would still be

present; and the reason for lowering its grade wouldn't be the overestimation, but the relatively small valuational payoff.

The exact nature of value could also be a little off, depending on how fine-grained we individuate values, or the knowledge condition of two paragraphs back not quite met, without affecting creativity. Aiming at the high cognitive value of subtle, penetrating, significant, and correct philosophical argumentation, Teddy might write a book on philosophical method, laying out and explaining subtle, penetrating, and significant philosophical argument after subtle, penetrating, and significant philosophical argument. There can be little doubt that such a book would be of great cognitive value. Suppose, however, that each and every argument isn't just subtle, but even more subtly wrong. The value realized wouldn't then be quite the value aimed at; Teddy didn't completely know what he was doing in bringing about the value of the book; and he was oblivious of the fact that he was bringing about that value in a way slightly differently from the way he envisioned or intended. Yet all that is of little moment. If there's enough of value present, small deviations can be all but ignored. Creativity isn't so niggardly in its provisions as to deny the attribution to Teddy.

Originality and Value

Another issue concerns the relation between the kind of object, the kind of value, and originality. Art has been the exclusive focus of attention here, though the problem is a general one. The question is usually posed as, Is originality an aesthetic value? meaning, With art, is originality a value, or a positive value-making property? Put this way, the generality of the issue is evident. In the case at hand, the kind of object is work of art; the kind of value would naturally be taken to be aesthetic or artistic value; and the originality would naturally be taken to be originality in relation to the kind of thing in question, work of art. Exactly the same kind of question can be asked about different kinds of object, value, and originality. With mathematics, the kind of object is mathematical object (e.g., a demonstration), the value naturally taken to be cognitive value or some species thereof, and the originality naturally taken to be mathematical originality. "Naturally taken" doesn't mean always taken, however. Art could be judged from an economic point of view, or mathematics from a historical point of view, and in many cases, originality does make for greater economic value in art, and greater historical value in mathematics. But because art as such aims at aesthetic or artistic value (or so I assume)³⁰ and mathematics at cognitive value—because those are the values internal to those kinds of thing—they're naturally assumed to be the values in question.

Regardless of the kind of object, there's certainly one important connection between originality and value: the features in virtue of which an object is original (as the kind of object it is) are also the features in virtue of which it's valuable or more valuable (as that kind of object). Originality and value don't sit side by side in creativity, with no relation between them, but are connected via a common root: independently identifiable features that constitute the basis for both. The painting is both original and valuable because of its stunning and seemingly inexplicable use of light contrasts to concentrate

³⁰ The assumption here is a traditional one, but it has been challenged.

energy; the proof is both new and valuable because of its use of a tabular arrangement and simple arithmetic truths to derive startling, almost inexplicable results about infinity (I'm thinking of Cantor's diagonal proof of orders of infinity). To note such a connection, however, is to say nothing about whether originality itself makes for value, or more value.

For a great many creations, it's obvious that originality adds nothing. Cara's proof isn't a better proof than Kate's, even minimally, and it doesn't have a higher cognitive value, just because she was first to the conclusion; and, the technological merits of two cars being equal—identical gas mileage, safety features, repair records, and so on—a car off the assembly line in 2009 isn't a better car, or a greater technological achievement, than one off the assembly line in 2010. Even adding ingenuity to originality doesn't make a difference. Clever Cara may have been the first to prove a lemma, and Kate, not nearly as quick, may not have had an inkling of how to do so until she read Cara's paper. For all that, her proof, qua proof, is none the worse than Cara's. The same holds for the cars. In such cases, the originality of the product affects, and should affect, our evaluation of the person, not the product.

In cases in which the value in question carries an inherent reference to the past or future, however, newness or originality can make a difference. The first Model-T off the assembly line has greater historical value than any other Model-T; the plane actually flown by the Wright Brothers in their first flight has greater historical value than any other plane flown by them (or, indeed, any other plane); an autograph copy of Locke's *Treatise* has an historical value not possessed any non-autograph copy of the book.

The Aesthetic

What about art and aesthetic value? Some historical properties are undoubtedly inherently relevant in properly interpreting and evaluating works of art. What a word (e.g., 'awful') meant at the time (e.g., the Elizabethan Age) it was used (e.g., in *Richard II*), especially if it didn't retain that meaning (it meant *awed*, or *full of awe*, in Shakespeare's time), is needed to correctly interpret and evaluate the work. As far as pure aesthetic evaluation is concerned, however, it's hard to see how newness or originality adds anything or is essentially implicated in the way that the history of a word is. If we imagine a work of art devoid of value, including aesthetic value, but add that, like my wewber, it's original, the first of its kind, nothing of aesthetic value is thereby added. It's just an original work of no aesthetic value.³¹ In and of itself, then, originality isn't an aesthetically better-making feature of a work of art. That means that if it is better-making feature, it will be so because, when added to some independently identified feature of a work, it makes for aesthetic value, or for greater aesthetic value. The aesthetic value (or greater aesthetic value) would supervene on other-element-plus-originality, just as being non-poisonous supervenes on sodium-plus-chloride.³²

³¹ Of course as I point out in "Is, Madam? Nay, It Seems!" p. 213, 'original' could itself be used as a value-laden term, in which case it immediately follows that an original work has value. Vermazen notes the same in "The Aesthetic Value of Originality," p. 271. This isn't how the term is being used in this paper, however.

³² Vermazen, *ibid.*, makes a similar but not quite identical point, *op. cit.*, p. 271, though in relation to what is termed artistic value below. (In essence, Vermazen uses the term 'aesthetic value' for what I call 'artistic value.' Given his theory of aesthetic evaluation, it's convenient and not unreasonable for him to do so.)

The most likely candidate for a wedding partner is aesthetic value itself. Of at least some intuitive appeal is the idea that what's good is even better if it's the first of its kind. But even if that's correct as a general principle, the question at hand is, Is what is aesthetically good aesthetically better because it's first? Of more total value, yes, if only because of historical value. But is aesthetic value also added?

One reason that's doubtful is that also of intuitive appeal is the idea that what's good is even better if it's the last of its kind—the last Rolls off the assembly line, the last flight of the SST, the last buffalo nickel. Here the added value is historic, or sentimental, or, maybe, no value at all but mere snob-appeal. Why should it be any different with a work of art? The last Picasso isn't aesthetically better because he didn't complete another painting of comparable aesthetic value, and so not aesthetically worse if he had; and, by parity of reasoning, the first Picasso of aesthetic merit wouldn't be aesthetically worse if he had begun painting good pictures earlier, and so not aesthetically better because he didn't. Properties other than aesthetic value might be coupled with newness or originality in an effort to secure aesthetic value, or more aesthetic value, but none seems likely to yield the desired result. Tentatively, then, the conclusion to draw is that originality isn't an aesthetically better-making feature of a work of art.

The Artistic

Artistic value might be distinguished from aesthetic value, however, and it then argued that, whatever may be the case with aesthetic value, originality makes for greater artistic value. The general idea is that the evaluation of an object as a work of art, and not just as an aesthetic object, requires taking into consideration art-related factors that pure aesthetic evaluation doesn't,³³ and originality is one such factor.

There are a number of ways to flesh out this position. Jerrold Levinson, for example, argues that a work of art is

“the embodiment of [an] achievement, which makes [a] work logically and appreciatively inseparable from the activity that generates it. It seems incontestable that part of the achievement of some works of art is precisely the striking originality, whether of means, ends, or ends-in-relation-to-means, that they manifest. Such achievement belongs to the work, and not simply the artist who has created it. [After that achievement has become established,] later works, however similar, do not partake of that achievement and do not exhibit that originality, hence are not as admirable artistically.... A [work of art's] achievement is part of what the work both is and does.... Some of the value of a [work of art] is rooted... in it being a human artifact, in virtue of which it, say, displays originality. [Originality thus] contributes to its artistic value, though not to its aesthetic value narrowly construed.”³⁴

³³ Or what's being called artistic value here might be termed aesthetic value in the broad sense. This is Gaut's usage of the term, for instance, in his “The Ethical Criticism of Art.”

³⁴ Jerrold Levinson, “Elster on Artistic Creativity,” pp. 239–240. The idea that performance and achievement are concepts internal to works of art is used for similar purposes by Dutton 1983 in “Artistic Crimes” (in Dutton, ed., pp. 172–187), though in relation to forgery and other origin-related properties of works of art. Dutton himself picked up the main idea from Sparshott 1967, *The Concept of Criticism*.

As it stands, though, this particular line of reasoning won't do. If we substitute 'door,' 'hose,' 'pencil,' or any term that picks out an artifact for 'work of art' in the above passage, the argument is just as strong—or just as weak. Achievement—doing something and accomplishing a task or attaining a goal—is common to and possible for anything human beings try their hand at, not just art, so what Levinson says about art he could just as well be said about plumbing. The argument holds, in other words, if it holds at all, for every kind of artifact, and so, contrary to Levinson's conclusion, no distinctive kind of value, artistic value, is picked out by it. The originality of a computer's hardware doesn't make the computer artistically better than otherwise. If anything, it's artifactual value, value as an artifact, that Levinson's argument concerns. But artifactual value, if there is such a thing, isn't the same thing as artistic value. All it records is that something or other was achieved, not that something artistic, or of artistic value, was. Equivalent to this refutation by logical analogy—in other words, an alternative way to put the objection that the conclusion doesn't follow from the premises—is a reduction ad absurdum: if the argument proves that originality is an artistically better-making feature, there's no reason not to think that it also proves that it's a technologically better-making feature. On the argument, then, the originality of a musical composition means that it has greater technological value than an unoriginal composition.³⁵

Independent of that, I doubt that the argument proves anything about any kind of value at all, even, assuming there is such, artifactual value. My weeber is original but has no value at all; many original paintings have no value at all (including artistic value); original but crackpot schemes to beat the casinos, turn lead into gold, or solve the world's problems have no value at all. Originality may be an achievement in all these cases, but not an achievement of value.

Committed to an Institution

But if originality isn't, as such, a better-making feature of an artifact from any valuational point of view, perhaps it is in conjunction with the appropriate value, the value internal to the kind of artifact in question. As far as art is concerned, what this amounts to is (most plausibly) a proposal parallel to one aired above in relation to aesthetic value: originality in conjunction with aesthetic value/artistic value makes for greater artistic value.

If artistic value is construed narrowly, so it concerns only a work of art *qua* work of art, there's little reason to think such a proposal correct. The contribution of originality aside, two works by the same painter, novelist, sculptor, or whatever, could have the same artistic value, but our relative ranking of them, simply as works of art, wouldn't, and shouldn't, flip-flop up and back depending on which we thought first.³⁶ Taken narrowly, we simply rank the works against each other, and the fact that one was earlier makes no difference.

The notion of artistic value can be taken more broadly, however, and criteria for its application extended beyond the narrow range of factors relevant to judging a work of art simply as an object of a kind. 'Art' can refer an institution as well as an object, and 'artistic value' thus taken as institutional value, a value which includes but is wider than

³⁵ This is essentially the objection I put much more briefly in *op. cit.*, p. 217.

³⁶ The argument here is similar to, though again not quite identical with, one advanced by Vermazen, *op. cit.*, p. 272. Vermazen is himself extending an argument first advanced by Beardsley, in his *Aesthetics*, p. 460.

object value. So understood, a strong case can be made for the artistic value of originality. The newness or originality of an, in the narrower sense, artistically valuable work of art is of positive institutional value in (a) adding to the history of the institution in a positive way, (b) manifesting and demonstrating the vitality of that institution, (c) strengthening the institution, by adding another source of value among those that inform it and contribute to it as resource for the community, and (d) helping to secure its place among competing social institutions, and bolstering the claim that it's an institution worthy of societal support and respect. All these factors are connected with the originality of the valuable work, but none provides the least reason for thinking an original work more valuable in the narrow sense. And, as should be the case, all four are applicable, *mutatis mutandis*, to artifacts other than works of art around which institutions, even very informal institutions, have been built or grown up. (a)–(d) apply as much to mathematics and mathematical value, considered, respectively, as an institution and as institutional value, as to art and artistic value, though admittedly, and is obviously the case with art and mathematics, the importance and strength of the four factors can and will differ over time and from institution to institution.

Degrees of Difference

Mention has repeatedly been made of the fact that persons, acts, and objects (taken broadly) can be more or less creative, that even if it's not readily quantifiable, creativity comes in degrees. It's in virtue of all three components of the concept—the making, the novelty, and the value—that that's so.

Greater newness or originality makes for greater creativity, and newness or originality is itself a function of how striking, how unexpected, and how much of interest the creation is or, more exactly, the aspects of the creation that make it a creation are. Strikingness, unexpectedness, and interest are themselves interrelated but distinct concepts that can vary independently of each other to a considerable extent. A striking proposal in physics might be of little interest, and an interesting proposal not be striking; and an unexpected turn in an argument might be of little interest, and an interesting turn not unexpected. Being of interest floats relatively free of being unexpected and being striking because it's of a higher cognitive order than both.

The relation between the striking and the unexpected is closer. A thing has to be contrary to expectations, not just not expected, to be unexpected, and as such it will be striking to some extent (in either of the two senses next distinguished). But not conversely. If to be striking is just to grab attention, then fully expected phenomena, such as the use of cell phones in public places, can be striking. And if being striking incorporates a valuational component, and requires that a thing be cognitively impressive and worthy of attention to some extent, then what is striking still need not be unexpected. The stars above him and the moral law within him, Kant says, are awesome, and so striking, but not unexpected in the sense in question.

In any case, all three are degree-notions, just as what they factor into, newness, is, and just as what newness itself factors into, creativity, is.

Value (or added value) also comes in degrees and makes for creativity, but not significantly, not with anything like the weight that novelty or originality does. No value at all demotes *creativity* to the second sense of the term, but adding or subtracting

value while keeping the other components of the concept constant increases or decreases creativity only minimally. Consider instrumental value. The internet is neither more nor less a creative achievement if greater or lesser numbers of people use it; laser surgery neither more nor less a creative achievement if greater or lesser numbers undergo it. Value, although it comes in degrees, need only be present to some non-negligible extent to make for creativity, and quantitative differences beyond that point have but little effect on degree of creativity.

Probably the most important factor funneling into creativity is the cleverness, resourcefulness, or ingenuity that's operative in making the creation. *Strikingness* and *unexpectedness* capture the leap that's inherent in creative achievement, but it's how that leap comes about that makes for creativity more than anything else. In calling an artifact more or less creative, the reference is ultimately to the magnitude of the human achievement, to our god-like ability to bring something new into the world by acting in a distinctly human way, using our knowledge and cognitive powers to secure value in a way we couldn't before. If novelty ensures objectively new features of interest to us, and value ensures that the new features aren't just any old features but ones which affect, or can affect, us to make life better or worse, ingenuity ensures a human subjectivity behind both the value and the objectivity of the features, a limited mind acting in a world not of its own making, to go beyond that world, for itself, while remaining in that world. In at least one respect, in creativity we see ourselves as we most want to be: not powerless, transcending nature's boundaries, even transcending some of our own previous boundaries. It's for those reasons that we not only put the most weight on ingenuity, resourcefulness, and cleverness in gauging creativity, but also value creativity, praise it, even celebrate it, in the first place.

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