

Time, Causation, and Abstract Objects

1 The Theoretical Role of the Distinction Between the Abstract and Concrete

What are abstract objects and how do they differ from concrete objects? There is little consensus on either question. Some philosophers have held that an object is abstract just in case it stands in no causal relations. Others have held that objects are abstract just in case they have no spatio-temporal location. Others have held that an object is abstract just in case it both stands in no causal relations and has no spatio-temporal location. Others have claimed that an object is abstract just in case reference to it must be secured by a certain kind of functional expression. These are just some of the most prominent characterizations. There are many other somewhat less popular characterizations as well.¹

Theoretical use of ‘abstract’ and ‘concrete’ is thus in disarray. Sometimes they are used to express one pair of properties and at other times they are used to express some other pair of properties. Is there any reason to prefer one pair of meanings to another? One way to begin to answer to this question is to specify the theoretical role, if any, to be played by the distinction between the abstract and the concrete. Once we have specified this role, we can ask whether or not one or another of these proposed characterizations better plays that role. If one does, then we have a reason to prefer that characterization.

What is the point of the distinction between the abstract and the concrete? This is not a distinction that one encounters in pre-theoretical thought or talk. So, unless there is useful work for the distinction to do, we are better

¹For a more comprehensive treatment of the various ways of characterizing abstractness, see David Lewis, *On the Plurality of Worlds*, (Oxford: Oxford University Press, 1986), § I.7 and John P. Burgess and Gideon Rosen, *A Subject with No Object*, (Oxford: Oxford University Press, 1997) pp. 13-25.

off without it. If there is useful work to do, we can assess competing characterizations of the distinction in terms of their respective abilities to do that work.

One important job that the distinction between the abstract and the concrete might do is to allow a response to an epistemological worry that a certain kind of platonism can engender. Here's a familiar argument for platonism. Our best mathematical theories are expressed by sentences containing singular terms like '7'. The theorems of our best mathematical theories are true. If truth and reference is the same in mathematics as it is in other domains, then terms like '7' must refer to objects like the number seven.

One can imagine a philosopher with an empiricist bent responding, "There are numbers—what an interesting thesis! But I shall reserve judgement until you show me a number." How should a platonist respond? It seems to me that when a claim is challenged in this way there are three permissible responses: (1) The claim-maker can ostend the object or state of affairs at issue. (2) The claim-maker can describe what steps to take in order to be in a position to have perceptual experience of the object or state of affairs. (For example, if I claim that there are wild parrots living in Chicago and someone demurs, a permissible response on my part is to say, "Go to the park at Hyde Park Boulevard and 53rd street in Chicago and see for yourself.") (3) The claim-maker can explain why sense experience of the object or state of affairs is impossible.²

Theoretical entities are entities that are not directly observed.³ When a theorist introduces a theoretical entity, she must explain why no sense per-

²It is also permissible, under certain circumstances, to defer responding. Take, for example, some of the objects posited by folk psychology, e.g., beliefs and desires. We have a functional characterization of beliefs and desires. We have no reason to think that observation of the brain states that occupy these roles is impossible. And yet we cannot neither ostend such states nor describe the steps necessary to have perceptual experience of them. Folk psychology is a theory that enjoys a high degree of empirical confirmation. Consequently, it is rational to believe folk psychology even though the empiricist's challenge has not yet been met. The challenge, however, still stands for the folk psychologist. He is obliged to search for the observable entities which occupy the roles. If, in the long run, he fails to find them, he must either explain why such observations are, after all, impossible, or he must revise his theory.

³I shall assume without argument that there is an epistemologically significant distinction between what is observed and what isn't. See Bas van Fraassen, *The Scientific Image*, (Oxford: Oxford University Press, 1980) and Jerry Fodor, "Observation Reconsidered," *Philosophy of Science*, Vol. 51, No. 1 (Mar., 1984), pp. 23-43.

ception of the theoretical entity is possible. Such explanations can take many forms and the kind of possibility at issue typically varies with the form of the explanation. Often theoretical entities are too small to be the objects of sense perception. Before the invention of the microscope it was (technologically) impossible to see genes or germs. Given the size of electrons and the makeup of our organs of sense perception, it is (biologically) impossible to see electrons. Ultraviolet light is invisible because our organs of sense perception are not sensitive to wavelengths that exceed certain limits, although it is conceivable that evolutionary pressure could cause our eyes to become sensitive to such wavelengths just as it is conceivable to we could evolve in such a way that we could come to have sense experience of electrons.

Let us assume that numbers are theoretical entities, and so the platonist must explain why sense perception of numbers is impossible. (This assumption is harmless. I am not defending a claim about the metaphysics of number, I am specifying a theoretical role for the distinction between the abstract and the concrete to play. We may well have a need for something to play this role no matter what the correct metaphysics of number turns out to be.) Abstractness is often invoked to explain this impossibility. The kind of impossibility here is obviously not the technological or biological kind. No technological advances could put us in a position to have sense perception of numbers, just as no matter how our organs of sense perception will evolve, they will never deliver sense experience of numbers. The notion of abstractness is thus something of a placeholder for a property that will explain why sense perception of such objects will be forever beyond us irrespective of technological advance and biological evolution.

Having identified a useful job for the distinction between the abstract and the concrete, we can assess the various characterizations of that distinction in terms of their ability to do that job. Before proceeding to that assessment, however, I should note that I do not claim that this is the only job that the notion of abstractness has been called up to play. There may be many theoretical roles that have been associated with the predicate 'abstract'. In what follows, I shall develop an account of abstractness as it relates to the theoretical role of explaining the impossibility of sense perception. Other roles may well require other accounts.

Many of the most popular characterizations of abstract objects do explain why we can't have sense perception of them. It is very common to characterize abstract objects as those objects which stand in no causal relations or as those objects that have no spatio-temporal location or as both. All of

these characterizations would explain the impossibility of sense perception of abstract objects.⁴ It is a necessary condition on sense perception that the object of perception is spatio-temporally located.⁵ So if abstract objects are those objects that lack spatio-temporal location, then abstract objects cannot be the objects of sense perception. It is a necessary condition on sense perception that the perceiver stand in an appropriate causal relation to the object of perception. So if abstract objects are those objects that stand in no causal relations, then abstract object cannot be objects of sense perception. Perhaps the most common characterization of abstract objects holds that such objects have neither spatio-temporal properties nor stand in any causal relations. If the theoretical role of the distinction between the abstract and concrete is to explain the impossibility of sense perception of abstract objects, then this version is overkill. Either lack of spatio-temporal properties or the absence of causal relatedness would suffice. I conjecture that the popularity of this version stems from indecision concerning the two more minimal versions. Both can do the job. It is not obvious that there is anything to choose between them. So, the safest course is to wrap them together in a single account.

Is there nothing to choose between these various characterizations of abstractness? In what follows, I shall argue that reflection on a well known paradox from the philosophy of art gives us a good reason to prefer one of them to the others.

2 The Paradox of Artistic Creation

Consider the following inconsistent triad:

CREATION: Artworks are created by artists.

⁴It is worth noting that some accounts do not explain why we can't have sense perception of abstract objects. For example, those accounts according to which abstract objects are those objects reference to which must be secured by a certain kind of functional expression do not explain why we can't have sense experience of them. Indeed, that reference to them must be secured in this way is arguably explained by the fact that we cannot perceive them and so can't demonstrate them.

⁵I take perception to be a non-intensional relation. In other words, that x perceives y entails that y exists. Hallucinations and the like are thus not perceptions. I should also note that it is a necessary condition on sense perception that the object of sense perception must have a spatio-temporal location, but not that the sense experience itself represents that location.

ABSTRACT ARTWORKS: Some artworks are abstract objects.

NO CAUSATION: Abstract objects do not stand in causal relations.

Each of these claims enjoys some initial plausibility. CREATION is a platitude. Although mountain peaks and sunsets can be very beautiful, such things are not artworks. Artifacts are created by artificers. Artificers who create artworks are called artists. Michelangelo painted the ceiling of the Sistine Chapel. Bach composed the *Goldberg Variations*. Homer wrote the *Iliad*. The painting, the composing, and the writing—if commonsense is to be credited—were all acts of creation. ABSTRACT ARTWORKS is supported by the observation that artworks like the *Goldberg Variations* and the *Iliad*, are distinct from all the concrete objects (e.g. scores or performances in the case of musical works) with which they are normally associated. Take the case of the *Goldberg Variations*. No particular performance, recording, or score is the composition. A performance might have been out of tune, but the composition itself cannot be out of tune. A recording can be scratchy, but the composition cannot. The score can be smudged, but the composition cannot. We must conclude, by Leibniz’s Law, that no performance, score, etc. can be identified with the composition. The same conclusion is forced upon us by the transitivity of identity, for there are many performances and recordings but one composition.⁶ But if a musical work cannot be identified with a score or a performance, then what could it be? There don’t appear to be additional concrete objects with which we could plausibly identify them. In light of this difficulty, many philosophers have concluded that the composition is not a concrete object. The argument is an inference to the best explanation. Why is it so difficult to find concrete objects to identify with novels and symphonies? A powerful explanation of this fact is that novels and symphonies are not concrete objects. If this is correct, then some artworks are abstract objects. NO CAUSATION is a philosophical commonplace: it is very widely believed among philosophers that abstract objects are causally inert. As we have seen there is some good reason for this. NO CAUSATION allows abstract objects to play the theoretical role that defines them. And indeed, paradigmatic abstract objects like numbers and functions manifestly do not stand in causal relations.

⁶These considerations are discussed in Jerrold Levinson, “What a Musical Work Is,” *Journal of Philosophy*, 77 (1), 1980, p. 5.

These three propositions are in tension with one another. Creation requires causation. To create is make something happen, that is, to bring it about that something exists. This normally thought to involve causal efficacy. If artworks are created by artists and some artworks are abstract, then some artists cause an abstract object to exist. But then an artist can exert causal influence on an abstract object. We must therefore give up one of the three propositions in our inconsistent triad. Let us begin by exploring the possibility of giving up the first.⁷

3 Creation

Faced with the paradox of artistic creation, some philosophers have claimed that artists do not bring into existence artworks that are abstract objects (hereafter I shall speak of abstract artworks, by which I shall mean artworks that are abstract objects, not non-representational artworks). Rather they discover, select, or specify them. Call this the Discovery Thesis. There are at least two ways that this claim might be defended in light of the fact that it appears to conflict with CREATION. One way simply denies that all artworks are created by artists. Often proponents of this strategy soften the blow by explaining how something very close to CREATION is true. For example, it has been argued that although it is, strictly speaking, false that all artworks are created by artists, many of the beliefs associated with CREATION can be accommodated by noting that the discovery of abstract objects is creative. If such a strategy is to succeed, suitably weighty considerations must be adduced in favor of both ABSTRACT ARTWORKS and NO CAUSATION. Such considerations must be adduced because the high degree of intuitive plausibility enjoyed by CREATION. It is probably something that you believed prior to considering the Paradox of Artistic Creation. This being so, you should only give it up under pressure from considerations that are themselves more plausible than CREATION itself. Accordingly, I shall defer discussion of this version of the Discovery Thesis until we have discussed the reasons that support ABSTRACT ARTWORKS and NO CAUSATION.

⁷It should be noted that this paradox is an instance of a more general puzzle. There are abstract objects other than artworks that are thought to be created, for example, essays and treatises. But since this puzzle first came up for discussion in the context of abstract artworks, I will retain this restriction in my own discussion in order to maintain continuity with nearly all other discussions of this issue of the literature.

In what follows, I want to examine an alternative defense of the Discovery Thesis, according to which the platitude expressed by CREATION is consistent with the Discovery Thesis and hence is consistent with ABSTRACT ARTWORKS and NO CAUSATION. If this alternative defense of the Discovery Thesis is correct and CREATION is consistent with ABSTRACT ARTWORKS and NO CAUSATION, then the paradox is merely apparent. If this is so, then resolving the paradox will not teach us anything about the nature of abstract objects, since there would be nothing to resolve. For example, this would be true if the following analysis of creation were correct:

DISCOVERY: An agent a creates an object o just in case a brings into existence or discovers o .⁸

If DISCOVERY correctly analyzes the concept of creation then CREATION would be true but not conflict with ABSTRACT ARTWORKS and NO CAUSATION. In order to discover something, it is not necessary to causally interact with it. And so the claim that artworks are created by artists does not entail that artists causally interact with artworks. No doubt in many cases artistic creation is achieved by bringing something into existence. But when the artwork in question is an abstract object, creation can be achieved via discovery.

How could DISCOVERY be an analysis of creation? And how could some artists merely discover the works attributed to them? As Jerrold Levinson puts it, that artists bring art works into existence is “one of the most firmly entrenched of our beliefs about art.”⁹ Moreover, Levinson claims, the praise that we accord successful artists derives from the fact that we view them as “true creators.” We would not marvel at or esteem artists as we do, according to Levinson, if they merely discovered, described, or specified artworks.

Julian Dodd has objected that the considerations that Levinson adduces show merely that artists must be creative, not that they are creators.¹⁰ When artists discover abstract artworks, Dodd claims, their activity is not an “unimaginative tracing of an abstract pattern.” Dodd writes:

⁸Someone might reasonably recoil from such a disjunctive analysis. But what follows would still stand substantially unaltered if we reframed the issue in terms of equivocation or polysemy.

⁹Jerrold Levinson, “What a Musical Work Is,” *Journal of Philosophy*, 77 (1), 1980, p. 8.

¹⁰Julian Dodd, “Musical Works as Eternal Types,” *British Journal of Aesthetics*, 40 (4), 2000, p. 427-434

A composer is creative, not through bringing works into existence, but in having to exercise imagination in composing the works she does. A creative thinker is someone who has the imagination to have thoughts beyond the reach of most people. A creative composer is someone who has the imagination to compose works of music that others do not have the capacity to compose. Composition is, indeed, a form of discovery; but discoveries can be creative.¹¹

As Dodd notes, Einstein discovered the Theory of General Relativity, and his discovery was a hugely inventive and imaginative feat. Because of this, Einstein is rightly esteemed as a creative thinker. If creative artists do in fact discover rather than bring into existence abstract art works, this would in no way, Dodd observes, diminish their creativity or our admiration for them.

I must note that Dodd argues neither that DISCOVERY correctly analyzes creation nor that the claim that artists create artworks is compatible with the Discovery Thesis. Rather, Dodd is a revisionist who rejects CREATION. His observations about creativity are meant to challenge Levinson's assertions about the putative fact that all artists create explains (in every instance) the esteem we accord artists. Dodd's observations, nevertheless, suggest a way in which we might amend DISCOVERY so as to respond to Levinson argument from the esteem we have for artists:

DISCOVERY*: An agent *a* creates an object *o* just in case *a* beings into existence or creatively discovers *o*.

Dodd is correct that we sometimes admire those who discover as greatly as those who create because their discovery was ingenious or creative. And yet ingenious discovery is not creation and the ingenious discovery of an object with great aesthetic value does not make someone a creative artist. This can be shown by considering the following case. Imagine a person who searches for very beautiful gem stones and does so for the sake of their beauty. Imagine further that these gems are rare and difficult to find, so that discovering them requires much ingenuity and creativity.

Now consider the following platitudes:

1. If someone creates artworks, then she is an artist.

¹¹Dodd, "Eternal Types," p.428

2. If something is an object of sufficiently high aesthetic value and that object was created predominantly for the sake of that value, then it is an artwork.

Suppose that our gem hunter is successful in her hunt. She has discovered an object of great aesthetic value. Her search was conducted predominantly for the sake of the beauty of the gems. If DISCOVERY* correctly analyzes the concept of creation, then our gem hunter, having creatively discovered the gems, has created them. And because our gem hunter has creatively discovered something of great aesthetic value predominately for the sake of that value, we would conclude, if DISCOVERY* were true, that our gem hunter has created something of great aesthetic value predominately for the sake of that value. This, together with (1) and (2) entails that the gem stone is an artwork and the gem hunter is an artist. This consequence is obviously unacceptable. (1) and (2) are platitudes. So, clearly the false premise is that discovering is a kind of creating. I suppose that the analysis of creation in terms of discover could be patched up so as to accommodate the gem hunter example, but it is very difficult to see how it could be done in a principled way. An analysis that includes many *ad hoc* epicycles quickly begins to lose its appeal.

DISCOVERY* has further implausible consequences. As Kit Fine notes, discovery is a processes that involves finding things but it is not true that Conant Doyle *found out* that Holmes was a detective or *found out* that Holmes solved the case of the speckled band. Find something out involves inquiry. But Conant Doyle did not engage in any of the activities that we normally associate with inquiry. He simply *made up* the characters and stories that we associate with him.

Moreover, as Harry Deutsch points out, many acts of artistic creative are uncreative. Many arts works, both concrete and abstract, are derivative, unoriginal, and unimaginative. Such art works are nonetheless (and regrettably) created. They are certainly not creatively discovered since they are not creative.

Deutsch has proposed an account of artistic creation that is related to the Discovery Thesis but which is not vulnerable to the gem hunter counterexample or Fine's objections.¹² According to Deutsche, *unconstrained selection* is sufficient for creation. For any set of properties that a melody could have,

¹²"The Creation Problem," *Topoi*, 10 (2); "Fiction and Fabrication," *Philosophical Studies* 47 (2).

there is a melody that has those properties. Presumably the same can be said for literary characters, harmonies, rhythms, plots, and the like and so covers all forms of abstract artworks. This abundance makes the selector's choice free and unconstrained. This accounts for the "essential creative freedom that storytellers [and other artists] enjoy." And there is no need to suppose that an author or composer needs to find out anything about the object selected. Any act of stipulation will be successful due to the abundance of appropriate entities and so the artist need not bother to find out if anything answers to her stipulation. So Deutsche's account has the virtue of accounting for authorial authority. The abundance of stories and the like guarantees the authors success. Our gem hunter's selection of the gems is not free and unconstrained and so, according to Deutsche's account, would not count as an act of creation. Unconstrained selection does not involve finding any thing out and might plausibly be identified with making something up, so it is not vulnerable to Fine's objections.

But Deutsch's account is vulnerable to other counterexamples. For instance, my selection of non-actual possible worlds is unconstrained. Possible worlds are abundant. For every consistent set of properties that a world could have, there is a possible world that indeed has those properties. And yet when I specify possible worlds, I do not create them. Possibilities and necessities are not the product of human creation. And so unconstrained selection is not sufficient for creation. Indeed, as Stefano Predelli has noted, there is a wide variety of abundant entities (e.g., properties, worlds, propositions), which can be the object of unconstrained selection. Most of them, unfortunately for Deutsche, do not appear to be created by our selective activity.¹³ Deutsch might respond that stories, sound structures and the like are not merely abundant but maximally so. That is, he does not limit them to consistent classes of properties. Thus stories, sound structures, and the like are more abundant than properties and worlds. And this maximal abundance accounts for why artists create whereas stipulators of possibilities and properties do not. But it doesn't seem as though the difference between mere abundance and maximal abundance has much relevance to issue of creative freedom or authorial authority. Deutsch denies that the classes that constitute stories, characters, and sound structures must be consistent in order to avoid paradox not to ensure creative freedom and authority. Indeed, the

¹³Stefano Predelli, "Musical Ontology and the Argument From Creation," *British Journal of Aesthetics*, 41 (3), July 2001.

constraint of consistency does not appear to compromise creative freedom and authority in any meaningful way. When Fitzgerald writes in *Tender is the Night* that a Buick pulled into the driveway, there is no chance that he is wrong about that regardless of whether stories must be classes of propositions that are consistent or not.

I conclude that CREATION does indeed conflict with the Discovery Thesis and related variants, and, consequently, ABSTRACT ARTWORKS and NO CAUSATION.

4 Are some artworks abstract objects?

If some artworks are abstract, then, according to the theoretical role associated with abstractness, it is impossible to perceive some artworks. Earlier I mentioned symphonies and novels as candidates for being abstract. But does not this offend against commonsense? We speak of having sense experience of novels and symphonies all the time. How natural it is, for example, to say things like “I saw Alice’s new novel at the bookstore” and “I heard Beethoven’s ninth symphony last night.” Should not respect for commonsense lead us to conclude that no artwork is abstract? I think not, but to show this I need first to argue that things like novels and symphonies cannot be identified with many of the concrete objects which we surely do perceive.

We have already considered some arguments against identifying musical compositions with performances, scores, or recordings. Performances can be rushed but compositions cannot. Scores can be smudged, but compositions cannot. Recordings can be scratchy but compositions cannot. So, by Leibniz’s law, compositions are not performances, scores, or recordings. Moreover, if compositions were identical to performances then, by the transitivity of identity, performances are identical to each other. But there have been many performances of, for example, the *Goldberg Variations*. Two or more things cannot be identical to each other. So, compositions are not identical to performances (or, for similar reasons, scores or recordings). Similar arguments leads us to the conclusion that novels are not volumes. For example, a volume can be battered but Fitzgerald’s story of Jay Gatsby cannot. So *The Great Gatsby* is identical to no volume. And there can be many volumes associated with a single novel, so novels are not identical to any volume.

Although no musical composition or literary work can be identified with any particular performance, manuscript, or score, perhaps suitable concrete

objects can be constructed out of performances, manuscripts, or scores. For example, perhaps a musical composition is a set of performances.¹⁴ Or perhaps it is a mereological fusion of performances. But these suggestions have unwelcome consequences. Sets have their members essentially.¹⁵ And, many philosophers believe, fusions have their parts essentially.¹⁶ So, if musical compositions are sets of performances or fusions of performances, then compositions have their performances essentially, either as members or as parts. But if compositions were sets or fusions of performances, then the following would be true: if the Garfield High School Orchestra had not performed Symphony No. 1 in E Minor Op. 39 by Jean Sibelius on April 15, 2001, then Sibelius' Symphony No. 1 would not have existed. This is absurd. Similar absurdities follow if we hold that compositions are fusions of scores or that literary works are fusions of books or manuscripts.

Perhaps fusions do not have their parts essentially. After all, Tibbles the cat, after an unfortunate encounter with a knife, would still exist even though her tail is no longer a part of her. If wholes can persist through the loss and acquisition of parts, the objection goes, then wholes do not have their parts essentially. But for such a response to be effective, we must be given a principle of composition according to which the individual performances compose a musical work. Note that such a burden does not exist for someone who claims that cats are fusions of cat-parts. We have robust pre-theoretical intuitions about cats, their parts, and the ability of cats to survive change. Such intuitions guide our theoretical efforts. Our judgment that cats are complex objects composed of cat-parts need not be suspended until we have an account of the principle of composition that binds cat parts into cats. The situation is quite different when it comes to musical works. We have no such pre-theoretic intuitions about works and performances. So we require an independently motivated principle of composition that would underwrite such fusions. I know of no such principle and I'm skeptical that one could

¹⁴Given the theoretical role that we have assigned to abstractness, an object is concrete just in case it is possible to have sense perception of it. The sense perceivability of sets is a tendentious matter. Many philosophers think that sets are imperceptible and hence abstract. Others, notably Maddy, think otherwise, and would hence classify them as concrete.

¹⁵See Nicholas Wolterstorff, "Toward an Ontology of Art Works," *Noûs*, Vol. 9, No. 2 (May, 1975), pp. 121-123 for a discussion relating this fact to the ontology of art.

¹⁶For an excellent discussion of the grounds of these claims, see James Van Cleve, "Why a Set Has Its Members Essentially," *Noûs*, vol. 19, no. 4 (December 1985), pp. 585-602.

be discovered.

I would like to now turn to the question of whether or not the acceptability in many contexts of utterances of sentences like “I saw Alice’s new novel at the book store” or “I heard Beethoven’s ninth symphony last night,” entails that novels and symphonies themselves (as distinct from the sentence tokens or performances that express them) are objects of sense perception. I have three arguments that it does not. The first is semantic and it shows that typical utterances of those sentences do not commit their speakers to the perceptibility of such objects. The second is epistemic it shows that the objects of perception cannot be such objects. The third is phenomenological and it too shows that the objects of perception cannot be such objects. I shall begin with the semantic. Ordinary English is often ambiguous (or polysemous if you prefer) between what is expressed and what expresses. Consider the following sentence: “When it comes to simplicity, our acid test is whether you can write the proposition on a business card and still convey your meaning.”¹⁷ Philosophers typically reserve the word ‘proposition’ to denote the content of an utterance or inscription. It does not mean, in standard philosophical usage, the string of symbol tokens that is uttered or inscribed, which is typically called a ‘sentence.’ But there is a natural reading of this text according to which the word ‘proposition’ denotes the string of symbol tokens inscribed. Or imagine a teacher issuing the following command to a young student: “Write the number two on the blackboard.” Philosophers commonly distinguish numbers from numerals, numerals being the symbols which refer to numbers. A natural reading of what the teacher would mean by this is that the student should write the numeral ‘2’ on the blackboard.

Given this ambiguity, we should not take the acceptability in many contexts of utterances of the form “I saw the proposition on the back of a business card” or “I saw the number two on the blackboard” as evidence that numbers and propositions can be the object of sense perceptions. Such utterances can be naturally read as saying that the speaker saw the sentence written on the back of a business card and that the speaker saw the numeral ‘2’ on the blackboard.

Ordinary English is similarly ambiguous with respect to things related as musical compositions are to performances or novels are to books. Consider the following sentence taken from a review of a concert given by the London

¹⁷From Darwin Magazine, (<http://www2.darwinmag.com/connect/books/book.cfm?ID=161>)

Symphony Orchestra: “With the Mahler the LSO at least seemed to be on safer ground—so far as the notes were concerned. Childhood innocence didn’t come into it much! The symphony dragged, and was characterless and bland.”¹⁸ The most natural reading of this sentence is that the performance dragged, not the work of music composed by Mahler. It would be very odd if the author intended to say that the work itself dragged because this remark comes in the context of criticizing the performance and not the composition. Or consider the following: “When the nights come on fast, dark and wickedly cold, there’s no better time to hole up with a stack of novels.”¹⁹ Once again, this sentence has a perfectly natural reading according to which it says that winter is a good time to hole up with a stack of bound volumes not a stack of narratives.

Given such ambiguity, a perfectly natural reading of an utterance of the sentence “I saw Alice’s new novel at the bookstore” is that the speaker saw a copy of Alice’s new book. Likewise, a perfectly natural reading of an utterance of the sentence “I heard Beethoven’s ninth symphony last night” is that the speaker heard a performance of Beethoven’s ninth symphony last night. This being so, the acceptability of utterances of such sentences does not rule out the possibility that artworks like novels and symphonies are abstract. Note that I do not wish to argue that these are the only available readings. In the semantic argument, I am merely seeking a stand-off with my opponent. The acceptability of the utterances discussed cuts no ice one way or the other.

Let’s us now turn to an epistemic argument for the claim that we do not have sense experience of novels or performances. Take a proposition p of the form “There are F ’s”. Imagine a subject S who believes neither p nor not- p . Suppose that S ’s current belief set makes rational neither the belief that p nor the belief that not- p , but S does possess the concepts necessary to grasp p . If S subsequently has a perception that p and there are no defeaters for the justification that perception otherwise confers, S will have acquired a reason to belief that p . So, for example, If p is the proposition that there are black swans, and S fulfills the conditions stated above, then if S comes to have perceptual experience of a black swan, then S will have acquired a reason to believe that there are black swans. Now imagine that S also fulfills

¹⁸David Wordsworth, “Previn and the LSO: 6th June”, http://www.classicalsource.com/db_control/db_concert_review.php?id=776.

¹⁹From “What to Read: Winter Novels” by Salon’s book critics, <http://archive.salon.com/books/feature/2000/11/22/novfiction/index.html>

the conditions stated above with respect to the proposition that there are numbers. Imagine that *S* walks into a room and sees ‘2+2=4’ written on a blackboard. She will not thereby have acquired a reason to believe that there are numbers. This can only be because she has not perceived a number although she has perceived some numerals. Likewise, suppose that *S* fulfills the above stated conditions with respect to abstract artworks. If *S* goes to the concert hall and listens to a performance of the *Goldberg Variations*, she will not have thereby acquired a reason to believe that there are abstract artworks. This can only be because she did not have a perceptual experience of an abstract artwork although she did perceive a performance of such an artwork.

Let us now consider the phenomenological argument. Perceptual experience has a particular phenomenology. On this point I am broadly in agreement with James Pryor when he writes:

I think that there’s a distinctive phenomenology [in perception]: the feeling of *seeming to ascertain* that a given proposition is true. This is present when the way a mental episode represents its content makes it feel as though, by enjoying that episode, you can *thereby just tell* that that content obtains. We find this phenomenology in perception and in memory. When you have a perceptual experience of your hands, that experience makes it feel as though you can just see that hands are present. It feels as though hands are being shown or revealed to you.²⁰

When I have sense experience of a token numeral, I do not have the feeling of seeming to ascertain that there are numbers. When I experience a performance of a musical work, I do not have the feeling of seeming to ascertain that there are abstract art works. I believe both that there are numbers and that there are abstract artworks. I have had sense experience of numeral tokens and musical performances. But those experiences do not seem epistemically connected to my beliefs about numbers and artworks. I conclude that my experiences of numerals and performances were not also experiences of numbers and musical works.

²⁰James Pryor, “What’s Wrong With Moore’s Argument?,” *Philosophical Issues*, 14, *Epistemology*, 2004, p. 357. Although I am in broad agreement with Pryor, I do not want to commit myself to his claim that the phenomenological character of sense perception is *distinctive*. For the purpose of my argument, all I need to claim is that all sense perception has this character. I do not need to claim that only sense experience has this character.

We are now in a position to set out the case for the claim that some artworks are abstract objects. We have seen that, although artworks like symphonies and novels are associated with various concrete objects, they cannot be identified with them. Suppose that an empiricist critic responding to the arguments that, for example, symphonies are not identical to performances, scores, etc. by saying, “Well I concede that symphonies, if there are any, are not identical to performances, scores, etc. But I shall reserve judgment on the question of whether there are any symphonies until you show me one.” It seems clear that we are not in a position to ostend a symphony or describe the steps that one would have to take in order to be in a position to have a sense experience of a symphony. And ostending a performance would have as little evidentiary value as it would in the case where a platonist philosopher of mathematics ostends a numeral in defence of the claim that there are numbers. So, the only permissible response to our empiricist objector is to explain why sense perception of symphonies is impossible. Clearly, they are not too small or far away. It also seems unlikely that our inability to have sense experience of symphonies results from the peculiarities of our organs of sense perception. In other words, sense perception of novels and symphonies is impossible regardless of technological advance and biological evolution. So those of us who believe in symphonies and novels are in the same position as the mathematical Platonist and must claim that artworks like symphonies and novels are abstract.

The existence of novels and symphonies is nearly incontrovertible. It is true that *The Great Gatsby* is Fitzgerald’s most famous novel. This entails that something is a novel, or that there exists a novel. So novels exist. So, I must conclude that symphonies and novels exist and are abstract.

5 Are some artworks hybrid entities?

It might be objected that the arguments of the preceding section are, if they are any good at all, only successful against the claim that all artworks are concrete but does not establish that some artworks are abstract. Perhaps the between abstract and concrete lies a third category that is somehow a hybrid of the two and artworks such as musical works and novels occupy this third category. Such a view has been developed and defended by Levinson²¹

²¹ “Musical Work,” pp. 19-21.

and Kit Fine.²² According to such views, the sound structures associated with a musical work or the content associated with a novel are not the works themselves but are constituents of the work. Levinson think that a musical work is a sound-structure-indicated-by-composer-*c*-at-time-*t*. Fine accepts Levinson's basic proposal but think that the manner of indication are also among the individuation conditions of musical works. Other types of abstract artworks can be analyzed similarly. Fine calls such objects '*qua* objects' and holds that for any object *o* and property *F* such that *o* is *F* there is an additional object, *o qua F*.

I am inclined to believe that there are some *qua* objects. In traditional philosophical vocabulary, such objects are called modes. Examples of such things are dents, fists and wrinkles. A dent might be a can insofar as it is dented, a fist is a hand insofar as it is balled, and a wrinkle might be a carpet insofar as it is wrinkled. In each of these examples, the property instantiated by the object represents a real alteration of the object. I am much less inclined to believe that there are *qua* objects where the property instantiated is a mere Cambridge property. When I point out a bird to you, have I brought it about that there is a new object now in existence—the bird-insofar-as-it-is-indicated-by-me? The intuitive answer to this question is no. Of course, it may be necessary to revise our metaphysical intuitions if an adequate theoretical account of some domain requires the postulation of *qua* objects.

Levinson and Fine argue that such objects are needed for two main reasons. First, musical works and novels are created but sound structures and stories are abstract. Since, Levinson and Fine claim, abstract objects stand in no causal relations, musical works must not be sound structures and novels must not be stories. But if there are hybrid entities that involve both abstract and concrete elements, they can be the objects of creation. *Qua* objects can provide such hybrid entities. Moreover, Levinson in particular, would like to explain the putative fact that two artists can create different works of art with the same abstract component. For example, Levinson uses the example of Borges' Pierre Menard who writes a novel that is a word for word duplicate of the story told by Cervantes' *Don Quixote*. Since its author and historical context is different, the work is different despite its content being the same. This kind of case seems to me to provide little pressure to accept *qua* objects since the claim that two artists can create distinct works

²² "The Problem of Non-Existents," *Topoi*, 1 (1982), pp 130-132.

of art with the same abstract content is highly controversial. I do not think it is an accident that Levinson is forced to use a fictional example of such an artwork. I know of no nonfictional example. What is more, Borges' story is the work of an author who loves the absurd and the perverse. My interpretation of the story is that the depicted scenario is meant to be impossible. It is a joke. But Borges' intentions notwithstanding, if someone actually did what Pierre Menard was said to have done, we would not judge her to have created a new work of art. She would have merely plagiarized a story that has already been told by Cervantes. So, the real case for *qua* objects must rest on the thought that they are needed since abstract objects stand in no causal relations. In the next section, I shall examine this claim.

6 Causation

What can be said in favor of NO CAUSATION? It is true that the no-causal-relations characterization successfully plays the theoretical role associated with abstractness. But we have other candidates that perform the same work without bringing us into conflict with the conjunction of CREATION and ABSTRACT ARTWORKS, both of which are well motivated. Are there additional grounds for accepting NO CAUSATION? Grounds weighty enough to lead us to contradict the highly intuitively plausible CREATION?

Someone might claim that numbers, which are paradigmatic abstract objects, clearly stand in no causal relations. If someone asked what brought the number two into existence, we would seriously doubt that she had fully grasped the concept of a number. Yet this does not tell against rejecting NO CAUSATION. Members of a kind can have features that the paradigmatic members lack and vice versa. Paradigmatic birds fly, but this does not tell against the claim that some birds do not fly.

It might also be objected that what is created can be destroyed.²³ So, rejecting NO CAUSATION on the grounds that abstract artworks are created entails that abstract artworks can be destroyed. But under what conditions could Bach's *Goldberg Variations* be destroyed? Some would say that an abstract artwork is destroyed when every copy and memory of it is destroyed.²⁴ For my own part, I have no particularly powerful intuitions on this matter.

²³See Mark Barber and Ben Caplan, "The Destruction Problem," (MS).

²⁴E.g. Amie Thomasson, *Fiction and Metaphysics*, (Cambridge: Cambridge University Press, 1999), pp. 9-10.

But regardless of the correct answer to this question, I feel no particular commitment to the principle: whatever is created can be destroyed. Indeed, what can be said in its favor? No doubt it manifests a pleasing symmetry, but that is hardly probative.

The number of reasons that weigh in favor of NO CAUSATION that I have considered is embarrassingly small and none of them are particularly weighty. I am not aware of any others reasons to accept NO CAUSATION. Unless there are considerations of which I am unaware, the only good option we have is to reject it.

We are now also in a position to reject the version of the Discovery Thesis that rejects CREATION. There is no need on this occasion to contradict an intuitively plausible principle. There is nothing to say in favor of the claim that abstract objects stand in no causal relations other than such a claim can explain the impossibility of sense perception of abstract objects. But other characterizations of abstractness can explain that as well. To accept NO CAUSATION and reject CREATION would, thus, gratuitously contradict a platitude.

7 Some Abstract Objects Stand in Causal Relations and Exist in Time

It is now possible to draw some conclusions. We have seen that CREATION is a platitude that genuinely conflicts with ABSTRACT ARTWORKS and NO CAUSATION. The theoretical role of the distinction between the abstract and the concrete is to explain why it is impossible to have sense perception of objects no matter how technology might advance and no matter how our organs of sense perception might evolve. We have seen that there is good reason to think that some artworks are abstract as it is impossible to have sense perception of them and that impossibility cannot be overcome by technological advance or evolution. And we have seen that the theoretical role associated with the distinction between the abstract and the concrete can be filled in such a way as to avoid commitment to NO CAUSATION if we accept that an object is abstract just in case it has no spatio-temporal location.

There is, however, a problem with the no-spatio-temporal-location characterization. Denying that abstract objects have spatio-temporal location might entail that abstract objects have no location in time. But this too

conflicts with CREATION. Beethoven composed his ninth symphony in 1824. Before that date, it did not exist—it came into existence in 1824. So the ninth symphony has a temporal location. Fortunately, a simple emendation is available. We need only to simplify thusly: an object is abstract just in case it has no spatial properties. Spatial location is a necessary condition on sense perception, so our amended characterization does the theoretical work that we require of it. And it allows that an abstract object can be created in time.²⁵

Is spatial location a necessary condition on sense perception? Imagine a scenario like Strawson's soundworld. This world has only a temporal dimension and no spatial dimensions. The inhabitants of this world exist in time alone. Is it not conceivable that the inhabitants of such a world could represent sounds and these representations could be causally connected to their contents in a manner appropriate to sense perception? If this is indeed conceivable, would we wish to deny that these creatures enjoy sense perceptions? But such a world is not conceivable. Just as heat is mean molecular motion, so too a sound is a series of compression waves in a medium. A world without space is a world without such waves. That is, a world without sounds. But let us allow that a world without space is conceivable and that it might be inhabited by minds. These minds could be capable of having the experience with the phenomenal character that we associated with auditory experience. Now suppose that these minds could become aware of the phenomenal character of each other's experience by being appropriately causally connected to them. They would not, of course, be hearing sounds. But might they be hearing none the less? Perhaps. But recall that the impossibility of sense perception that I have associated with abstractness is such that it would be impossible for us to have sense experience of such objects no matter what technological advances we achieve and no matter how our organs of sense perception evolve. When I say that spatial location is a necessary condition on being an object of sense perception, I mean that in every world technolog-

²⁵A problem with this proposal is that it is incompatible with current physical theories of four-dimensional space time. My proposal only works for traditional space and time. If current physics matches final physics in this respect, then my proposal cannot stand unaltered. One possibility is that although abstract objects exist outside of physical spacetime, they do exist in time which is distinct from the time-like dimension of spacetime. Another possibility is that they exist outside of spacetime but their existence is contingent upon an act of creation within spacetime. Thus it is false that the ninth symphony didn't exist before 1824.

ically and evolutionarily accessible to ours, every object of sense perception has a spatial location. I think that kind of hearing that the inhabitants of such a sound world would possess is such that we could never come to have it no matter how our technology advances and no matter who our organs of sense perception evolve.

Someone might object that my characterization of abstractness as lacking spatial properties, far from allowing me to respect the platitude of artistic creation, entails that abstracta stand in no causal relations. Hence, I would be committed to denying CREATION. After all, it might be alleged, it is a necessary condition on causation that its relata are spatially located. But this claim is tendentious. Many philosophers hold that non-spatially located things stand in causal relations. Plato holds that the Forms are not in space and yet they are the causes of the things that imitate them. (If you doubt that Plato thinks that Forms are efficient causes, then consider instead the Demiurge of the *Timeaus*, who is outside of space (the receptacle) but is surely an efficient cause.) Aquinas thinks that God is not spatially located but is the cause of the world. Descartes thinks that minds are not spatially located but can causally act on bodies in space. Kant thinks the things-in-themselves are outside of space but are the causes of phenomenal appearances. Many philosophers (e.g. Bennett, Mellor, and Armstrong) think that facts can stand in causal relations, and yet facts have no spatial location.

Indeed, it can be fairly said that the vast majority of canonical figures in the history of philosophy have thought that things outside of space can be causes. It would thus be incredible to allege that it part of the concept of a cause that causes are located in space. The majority opinion among contemporary philosophers that causes must be in space is more plausibly interpreted as motivated by a commitment to a certain naturalistic metaphysics than by an insight into the concept of a cause.

Bob Hale has objected to the claim that an object is abstract just in case it has no spatial location.²⁶ If token-identity physicalism is true then every mental entity has a location. But if it is false, mental entities might have no location at all. This would collapse, Hale claims, the distinction between the mental and the abstract. According to him, we would thus be forced to claim that all abstract objects were mental. But surely the question of whether numbers or novels are mind-independent cannot be settled, Hale argues, by accepting or rejecting token-identity physicalism. *Pace* Hale, I see

²⁶Bob Hale, *Abstract Objects*, (Blackwell: New York, 1987), pp. 49-50.

no reason why we should conclude that all abstract objects are mental. The imagined circumstance would entail that mental entities are abstract, but not that abstract entities are mental. What is more, I don't see why rejection of token-identity physicalism would put pressure on us to say that mental entities have no spatial location. Some dualists, Descartes most famously, held that mental entities have no spatial location. But in Descartes case, I believe that this claim is forced on him by his spurious identification of matter with space. Once we give up that view of matter, it seems unproblematic, and indeed very natural, to say that if there are any mental entities distinct from all physical entities, then those mental entities have a spatial location. After all, if I am, in addition to a corporeal substance, a mental substance, I would be very surprised to learn that my mental substance wasn't here in this room.

To summarize: Reflection on the Paradox of Artistic Creation allows us to discriminate between the competing characterizations of abstractness. The no-spatial location characterization is the only one that successfully plays the theoretical role of abstractness, allows us to respect the intuitive plausibility of the claim that artworks are created by artists, and is consistent with a well motivated theoretical claim that some artworks are abstract objects. Furthermore, the fact that some artworks are abstract also leads us to draw conclusions about abstract objects of considerable interest: some abstract objects stand in causal relations and exist in time.

8 Conclusion

The concept of an abstract object occupies a curious position in contemporary philosophy. Although the importance of the concept is rarely challenged, there is very little agreement about how to characterize abstractness. A variety of distinct suggestions have been made. This situation suggests that there is not one univocal concept expressed by the word 'abstract'. Despite the diversity of meanings associated with 'abstract', surprisingly little attention has been paid to determining the point of the distinction between the abstract and the concrete. The notion of an abstract object is not an ordinary concept used in every day thought and talk. Despite the lack of any pre-theoretical moorings and inattention to the theoretical role of the concept, many philosophers confidently appeal to the notion of abstractness in their theorizing. Indeed, many claims about abstract objects have achieved

the status of philosophical orthodoxy, to the point where they control the development of certain philosophical disputes. One of these orthodoxies is that abstract objects are causally inert. Unfortunately, this claim conflicts with the conjunction of a highly plausible platitude about art and a well motivated theoretical claim. So unless the causal inertness of abstract objects is itself well motivated, we would do well to reject it, despite the philosophical conventional wisdom.

I have argued that the characteristic job for the distinction between the abstract and the concrete is to offer an explanation of why sense perception of certain objects (numbers, functions, symphonies, etc.) are not the objects of any possible sense perception. If this is correct, then we can assess competing conceptions of the abstract in terms of how well they would fill this theoretical role. I argued that, of the prominent ways of characterizing abstractness, only two can clearly fill the role: (1) an object is abstract just in case it lacks spatial location and (2) an object is abstract just in case it does not stand in any causal relations. I also argued that some artworks are abstract. They are not the objects of any possible sense perceptions, and not because they are too small, too far away, or due to the peculiarities of our organs of sense perception.

The first characterization of abstractness does not entail that abstract objects cannot be created, whereas the second does entail that conclusion. Some abstract objects are artworks, and artworks are created by artists. These considerations give us a powerful reason to prefer the no-spatial-location characterization of abstractness. So, an object is abstract just in case it lacks spatial location. There is no reason to deny that they can stand in causal relations or exist in time. Indeed, reflection upon our commonsense beliefs about art gives us a reason to believe that some abstract objects do stand in causal relations and exist in time.

Perhaps some will feel that our thoughts about art are too peripheral to our basic picture of the world to decide important metaphysical issues such as the causal profile of abstract objects. But the dialectical situation as I have described is such that it is enough that we believe that art works are created by artists for us to reach the conclusions that I have argued for. This belief need not occupy a central place in our picture of the world. Neither do we need to be sure of it or even have good reason to believe it. So long as we don't have good reasons not to believe it, we should go on believing as we have heretofore. It is irrational to give up a belief for no reason at all. We have two competing conceptions of abstractness that equally well play the

theoretical role assigned to it. One of them forces us to revise our current beliefs, the other doesn't. It would be perverse, it seems to me, to prefer the account that forces revision over the one that doesn't.