

Repeatable Artworks as Created Types

For Neil Walters

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I sketch here an intuitive picture of repeatable artworks as created types, which are individuated in part by historical paths (re)production. Although attractive, this view has been rejected by a number of authors on the basis of general claims about abstract objects. On consideration, however, these general claims are overgeneralizations, which whilst true of some abstracta, are not true of all abstract objects, and in particular, are not true of created types. The intuitive picture of repeatable artworks as created types is, then, left in place.

1. Repeatable Artworks as Created Types

A very natural view about repeatable artworks and their parts, such as novels, characters, pieces of music, and movements, is based around two logically independent, *prima facie* attractive ideas: namely that such works are types, and that they are created by artists. Repeatable artworks are not alone in this respect, since this 'type-creationism' is also a natural view of many other human artefacts such as models of car, languages, and national flags.

This view is often thought to be untenable, however. Types are abstract objects as, unlike paradigmatic concrete objects, they have instances. But abstract objects, it is thought, cannot be created, or are otherwise unsuitable to be identified with created artworks. There is, then, a supposed tension at the heart of type-creationism which makes it unsuitable as a view about repeatable artworks. It is to this line of thinking that the present essay responds.

Once this line of objection has been disposed with, the way is clear to develop in more detail a type-creationist account of repeatable artworks.

In order to evaluate the objections we need to know a little more about type-creationism. To start with the type side of things, the distinction between a *type* and its *tokens* is a metaphysical distinction between a general sort of thing and its particular instances. As such, types are universals. To illustrate: we need to distinguish between type and token words to answer the question ‘how many words are there in this essay?’ In the case of words, the type/token distinction is the distinction between dateable inscriptions and utterances (tokens), and the things inscribed or uttered (types). To see this, note that you and I can write the same word by writing different inscriptions; that is, we can write the same word type by writing distinct word tokens of that type.

Now just as the type/token distinction is useful in linguistics, it also has utility in many other areas.¹ In particular, it is extremely plausible to think of *repeatable* works of art, as types, of which their particular copies and performances are tokens. First, employing the type/token distinction explains the repeatability of such artworks: a single work can be performed multiple times because the performances are tokens of the work, in just the same way that a sentence can be uttered on multiple occasions. Relatedly, you and I can listen to the same piece of music by listening to distinct recordings or performances of that piece. And again this mirrors what we want to say about word types and tokens. Moreover, it seems like we need to distinguish between types and tokens to account for the distinct readings of ‘how many novels are there on your shelf?’ and ‘this is my favourite book’. So the type/token distinction seems tailor-made to account for the duality between work and performance/copy, and this has led many theorists to adopt this view.²

¹ See Linda Wetzel’s *Types and Tokens* (Cambridge, MA: MIT Press, 2009) for a survey.

² For example, Julian Dodd, *Works of Music* (Oxford: OUP, 2007), Jerrold Levinson, ‘What a Musical Work is’, *Journal of Philosophy* 77 (1980), 5-28, Peter Strawson, *Individuals* (New York: Routledge,

A second plausible thought about repeatable artworks is that they are artefacts, created by the respective artists.³ For example, Shakespeare is the author of *Hamlet*, and McCartney composed *Yesterday*. Now we did not use the word 'create' here, but our use of the words 'author' and 'composer' signal that we treat Shakespeare and McCartney as creating their respective works.⁴ Again many theorists have endorsed this creationist attitude.⁵

These two seemingly obvious thoughts are rarely put together, however, and are often seen as antithetical. But if we do combine them, then we have it that repeatable artworks are created types, just as we ordinarily take words to be – it seems that Shakespeare created the word 'besmirch', for example. This conception of repeatable artworks as created types is inspired by Strawson, Wollheim, and Levinson. For example, Strawson extends the notion of a type from languages to repeatable 'works of art, such as musical and literary compositions'.⁶ And Wollheim notes that we postulate such types when 'we can correlate a class of particulars with a piece of human invention'.⁷ Strawson and Wollheim's comments fit naturally with type-creationism about repeatable artworks, and Levinson explicitly endorses a version of type-creationism.

The claim that repeatable artworks are types which are created constitutes the bare-bones of a type-creationist treatment of repeatable artworks, a treatment that can be fleshed out in numerous ways. In the remainder of this section, I'll sketch my preferred way of filling in some of the details, and will develop the view to the extent required to answer the objections to type-creationism considered below.

1959), and Richard Wollheim *Art and its Objects* (Cambridge: CUP, 1980) all take repeatable artworks to be types.

³ I assume that one creates something iff one brings it into existence.

⁴ For example, the OED defines 'author' as 'The person who originates or gives existence to anything' <http://www.oed.com/view/Entry/13329>.

⁵ In particular, see Levinson 'What a Musical Work is', and Amie Thomasson *Fiction and Metaphysics* (Cambridge: CUP, 1999).

⁶ *Individuals*, 231.

⁷ *Art and Its Objects*, 78.

A central plank of type-creationism is that the existence of a type is tied to the possibility of generating tokens of that type, by reference to an individual 'which serves as a rule or standard for the production of others'.⁸ These individuals include both pre-existing tokens, like a sentence or a musical performance, as well as recipes for producing tokens of that type: recursion clauses for languages and musical scores are examples of recipes for producing tokens of a type, but are not themselves tokens of that type. In addition, types can be stored, for example, in memory, on a computer, or on film. Further tokens can be generated, then, either by copying existing tokens, or else by producing tokens according to a recipe, or from storage.

Let's call the individuals which allow for the generation of tokens the *embodiments* of a type.⁹ It is the existence of the embodiment of a type that enables the production of (further) tokens of the type. What's important for the existence of a type is, then, the possibility of generating tokens of that type: that is, that some embodiment of the type exists.¹⁰

Now recipes are themselves subject to the type/token distinction. For example, there are distinct tokens of a given musical score, and distinct tokens of a set of recursions clauses. As such, recipes themselves exist whenever there is a token of the recipe, a recipe for creating a token of the recipe, or when the recipe is stored. As a result there is an ambiguity in my formulation of the existence conditions of a type, T: is it the recipe type or token which is sufficient for the existence of T? If we have a recipe for a recipe for the production of tokens of T, then, in the relevant sense of 'possible', it is possibly possible to produce a

⁸ *Individuals*, 233.

⁹ The three types of embodiment listed above are not taken to be mutually exclusive or completely exhaustive. Some tokens, such as copies of novels, store types in a way that recitals, for example, do not, so the categories are not mutually exclusive. On the other hand, some embodiments, perhaps storyboards for comics, could be hybrids of tokens and recipes.

¹⁰ This is in fact too strong since we may have two overlapping partial embodiments, for instance, two partial copies of a novel, which would allow for the production of a new novel. But I set this aside in order to simplify the discussion.

token of T. The question is, though, is it possible to produce a token of T? More generally does the relevant notion of possibility obey S4: $\diamond P \supset \diamond P$? It seems clear that a piece of music survives if all that is left is someone's memory of a score, and so it cannot be that a token of a recipe is required for a recipe to sustain a musical work. So perhaps the existence of the recipe type is sufficient for T? In any case, as recipes and storage suffice for the existence of a type, T, the existence of a token of T is not, in general, required for the existence of T, and so the destruction of all of a type's tokens is not sufficient for the destruction of the type.

All of the above kinds of token generation allow for the imperfect (re)production of tokens and, relatedly, for modifications of a type. So, for example, how we write and say a word can change over time and imperfect copies of a work are still be copies of *that* work. Moreover, it seems that deviation from past tokens and recipes in the production of tokens can be deliberate, as authors and composers can, it seems, *rewrite* their own works, by producing tokens or recipes that differ from previous tokens/recipes with respect to their internal properties. What this shows is that tokens need not be alike in their internal properties to be (imperfect) tokens of the same type, as, for instance, a token and an imperfect copy of it may be tokens (albeit imperfect in at least one case) of the same type. So although (first-order) pure universals are fixed by relations of qualitative resemblance among objects - the universal's instances - (first-order) created types are impure universals tracing historical chains of (re)production.¹¹

If that's correct, created types are individuated by features that are, in some sense, external to them. We have seen that qualitative resemblance amongst tokens is not necessary for them to be tokens of the same type. Further, if types trace historical chains of production,

¹¹ I follow I. L. Humberstone 'Intrinsic/Extrinsic', *Synthese* 108 (1996), 205–67, at 210, in taking a property, $\lambda z.Fz$, to be impure 'iff there is at least one individual y such that, for any individual x, x's having the property $[\lambda z.Fz]$ consists in x's having a certain relation to y'. So a necessary condition on $\lambda z.Fz$ being impure is that $\exists R \exists y \forall x (Fx \equiv Rxy)$. A qualitative property is one which is not impure.

then the qualitative identity tokens does not ensure that they are tokens of the same type since they may result from different historical chains. Relatedly, there can be multiple types that do not differ with respect to their internal properties. To see this consider two types/tokens which are created completely separately and which, although resembling one another somewhat, we would unhesitatingly say are distinct artworks. Since these types can be modified over time by modifying tokens or by producing tokens which differ from their predecessors, then the two types and their tokens can come to converge in their qualitative properties. But there are two types here, since if x is distinct from y at one time, it is distinct from y at all times that they exist.

This picture of repeated artworks as created types has, I think, great intuitive appeal as it allows us to capture the repeatability, creativity, and evolution that we ordinarily associate with artworks such as novels and pieces of music. Despite this, it has been rejected on the basis of certain general claims about abstract objects. Below (§3-§5) I consider and reject three such objections, arguing that they all rely on overgeneralizations concerning abstract objects. But first I show why such objections require argument.

2. Objections from Abstractness

The three objections to type-creationism about repeatable artworks considered below all have the following form:

- (1) If type-creationism is true, there are repeatable artworks which are abstract objects (of a particular sort) which have feature F .
- (2) No abstract object (of this sort) has feature F .

Therefore,

- (3) Type-creationism about repeatable artworks is false.

In particular, they all propose a premise of the form of (2), and in particular, the following claims:

- (4) No abstract object has accidental intrinsic properties.
- (5) No abstract object can be created because no abstract object can stand in causal relations.
- (6) No type can be created because types exist at all times.

Now abstract objects are often taken to be non-spatial, non temporal, non-causal, immutable and unchanging, eternal, and necessary. It might be thought then, that (4) to (6) are obviously true, and so type-creationism is a non-starter. Let us say that an object that has some balance of features from the list above is ABSTRACT. Now if we choose our features carefully, (4) to (6) will be true, if all abstract objects (in the case of (4) and (5)) and all types (in the case of (6)) are ABSTRACT. According to type-creationism, repeatable artworks are abstract in the sense that they have instances. But it is by no means obvious that everything that has instances is ABSTRACT. Moreover, the type-creationist denies that repeatable artworks are ABSTRACT. So, without some *argument* that being repeatable entails being ABSTRACT, there is no threat to type-creationism from the fact that no ABSTRACT object has accidental intrinsic properties, can stand in causal relations, or can exist at some times but not others.

Now if everything is either concrete or ABSTRACT, then given that repeatable artworks are not concrete, repeatable artworks are ABSTRACT. But why accept that everything is concrete or ABSTRACT? The argument schema

Some non-concrete things are ABSTRACT.

Repeatable artworks are non-concrete.

Therefore,

Repeatable artworks are ABSTRACT.

is formally invalid, and is not otherwise compelling. Further, created types appear to be counterexamples to the claim that everything is either concrete or ABSTRACT. Indeed, one of the central messages of creationism about repeatable artworks is that such artworks do not fit into the traditional two-category ontology of the concrete and the ABSTRACT, and so that ontology is to be rejected. As Thomasson puts it:

by being abstract entities and created artifacts ... fictional characters fall firmly between traditional divisions of entities into the categories of physical particulars and ideal abstracta. Properly accounting for fictional objects and other abstract artifacts demands breaking out of traditional category schemes.¹²

So, unless some compelling argument is offered for the claim that repeatable artworks are ABSTRACT, nothing follows for the metaphysics of such artworks from the observation that ABSTRACT objects have certain features. We now turn to three attempts to show that types are not suitable abstract objects with which to identify repeatable artworks.

3. Abstract Objects have their Intrinsic Properties Essentially

Hazlett offers the following argument against the existence of repeatable artworks:

- (7) If there are repeatable artworks, they are abstract objects.
- (8) All repeatable artworks have accidental intrinsic properties.
- (9) No abstract object has any accidental intrinsic properties.

Therefore,

¹² *Fiction and Metaphysics*, xii.

(10) There are no repeatable artworks.¹³

Type-creationism is obviously committed to (7) and the version above also makes room for (8) since, for example,

Pictures at an Exhibition could have not included the reprise of the 'Promenade' between the sixth and seventh 'picture,' had Mussorgsky not included it.¹⁴

The key to Hazlett's argument, then, is (9). As we noted above, nothing follows for created types from the fact that no ABSTRACT entities has accidental intrinsic properties. Indeed, even if there were some other type of entity, E, which shared a whole range of features with created types, it would not follow from Es having their intrinsic properties essentially, that created types have their intrinsic properties essentially. Moreover, it seems obvious that repeatable artworks are both abstract and do have accidental intrinsic properties, so (9) seems false.

Hazlett, however, advances an argument for (9). The starting point of Hazlett's argument is his claim that the existence of (pure) abstract objects makes no demands on the world: there is nothing the world must be like for it to be the case that the number 2 exists. One might question Hazlett's premise but we need not quibble, since Hazlett also endorses Yablo's weaker claim that the truth of statements about abstract objects 'does not depend on what may be going on in the realm of concrete objects and their contingent properties and relations'¹⁵ and this is all Hazlett needs for his argument:

¹³ A. Hazlett 'Against Repeatable Artworks', in C. Mag Uidhir ed, *Art and Abstract Objects*, (Oxford: OUP, 2013), 161-178.

¹⁴ 'Against Repeatable Artworks', 168.

¹⁵ S. Yablo 'Abstract Objects: A Case Study', *Philosophical Issues* 12 (2002), 220-40, at 228.

(11) Abstract objects make no demands on the world (in Yablo's sense)

(12) If an object makes no demands on the world, then it has no accidental intrinsic properties

Therefore

(13) Abstract objects have no accidental intrinsic properties.

Hazlett supports (12) as follows:

suppose that x has some accidental intrinsic property F. In some worlds x is F, and in others x isn't F ... But if x is like that, then it becomes impossible to see how the existence of x could 'make no demands on the world,' ... What we cannot make sense of is the idea that the existence of the number 2 makes no demands on the world, whilst the number 2 undergoes intrinsic changes as a result of changes in the world.¹⁶

Now Hazlett's argument might be sound if we limit it to necessarily existing abstracta, since it is plausible that they make no demands on the world. But it isn't the case that contingent abstract objects, such as {Eiffel Tower}, make no demands on the world. For '{Eiffel Tower} has one member' to be true, the Eiffel Tower has to exist, and so {Eiffel Tower} does make demands on the world in Yablo's sense, hence (11) is false. Aware of this, Hazlett claims that existence of {Eiffel Tower} '*makes no demands of its own on the world; the only demands made are those made by the existence of the Eiffel Tower*'.¹⁷

So generalizing, we can say that

¹⁶ 'Against Repeatable Artworks', 168.

¹⁷ 'Against Repeatable Artworks', at 167, my emphasis.

(14) No abstract object makes a demand on the world which is not made by some associated concrete objects.¹⁸

But once we have weakened (11) in this way, Hazlett's argument is no longer valid, since (12) does not combine with (14) to yield (13). Rather, what Hazlett needs to go with (14) is

(15) If an (abstract) object makes no demands on the world which is not made by some associated concrete objects, then it has no accidental intrinsic properties.

But it is hard to see how to adopt Hazlett's argument for (12) in the passage above as an argument for (15). If x is F in one world and $\sim F$ in another, then x makes a demand on the world which is not made by some associated concrete objects, *unless* these associated concrete objects themselves differ between the two worlds. That is, if the variation in the intrinsic properties of an abstract object are mirrored by some appropriate variation in the associated concrete objects, then we can hold on to (14). To put all this another way, it is a philosophical commonplace that the arrangement of supervenient properties can vary as long as their supervenience base varies. Given this, there is no barrier to claiming that abstract objects have accidental intrinsic properties as long as the properties' supervenience base is contingently configured too.

What does the type-creationist take to be the supervenience base for repeatable artworks? The creative acts of artists are obviously part of it, but also relevant are the type's embodiments, including the patterns of (re)production and modification. But given that these creative acts and the configuration of embodiments are contingent, the intrinsic properties of types can also be contingent. This is just to say that the truth of statements concerning the intrinsic properties of created types depends on the truth of statements concerning its

¹⁸ For sets the associated concrete objects are its members, whereas for types they are its embodiments.

embodiments and artists, but not on the truth of statements about other concrete objects. And this is consistent with (14).

Of course, not all abstract objects which have a contingently configured supervenience base, such as {Eiffel Tower}, have accidental intrinsic properties. But from this it does not follow that no contingently existing abstracta have accidental intrinsic properties. The intrinsic properties of a type, unlike the intrinsic properties of a set, *are* sensitive to the properties of its supervenience base, and so there can be variation in the intrinsic properties of types, given the possibility of variation in its supervenience base. It is in this way that repeatable artworks differ from sets. What Hazlett would have to do to reinstate his argument is to show that the intrinsic properties of created types are not sensitive in this way to variation in their supervenience base. But this he cannot do.

So Hazlett's argument for the modal inflexibility of intrinsic properties does not work for created types. And this is not a surprise as (15) does not seem compelling: we knew all along that entities whose intrinsic properties supervene on the properties of other entities can have accidental intrinsic properties: simply take any macroscopic concrete object or mental life. Hazlett's argument fails because he implicitly assumes that the intrinsic properties of an abstract object are insensitive to the properties of its supervenience base, as is the case for sets. But this generalization will not be granted by the type-creationist. Hazlett, then, is guilty of making the kind of overgeneralizing move that we noted in §2 is illegitimate.

4. Abstract Objects are Causally Inert

The second and third challenges to type-creationism claim that abstract objects cannot be created. Consider the following ‘paradox’ presented by Ross Cameron.¹⁹ The following three statements are inconsistent, and yet Cameron thinks they are all plausible:

- (16) Musical works are created.
- (17) Musical works are abstract objects.
- (18) No abstract object is created.

And what goes for musical works presumably goes for other repeatable artworks.

Dodd’s²⁰ way out of the paradox is to give up (16) and hence deny creationism. Predelli thinks that it is ‘*prima facie* plausible ... that abstract entities are not created but discovered’, but instead of rejecting (16) with Dodd, he gives up (17).²¹ But given that type-creationism is committed to (16) and (17), it is (18) that must be rejected. But what pressure is there to accept (18)? As is familiar by now, it is not obvious that everything is either concrete or ABSTRACT, and so there is no reason to accept Predelli’s claim that it is plausible that no abstract entities are created. Rather, we need an argument for (18).

Cameron claims that abstract objects cannot be created because they cannot stand in causal relations. But as Hale notes this claim also needs to be argued for since it is not obvious.²² Indeed, as noted above, it is extremely intuitive that certain abstract objects, types, are brought into existence. Hale agrees:

¹⁹ R. Cameron ‘There are No Things that are Musical Works’, *BJA* 48 (2008), 295-314

²⁰ J. Dodd ‘Musical Works as Eternal Types’, *BJA* 40 (2000), 424-440, at 431.

²¹ S. Predelli ‘Against Musical Platonism’, *BJA* 35 (1995), 338-350, at 340.

²² B. Hale *Abstract Objects* (Oxford: Basil Blackwell, 1987), 2.

Chess and English, unlike the natural numbers or sets, have their histories. They came to be at certain more or less definite times ... it seems an undeniable fact that games, unlike shapes or directions, are invented or devised, and so come into existence at a particular time; similarly for languages.²³

So we require a decisive argument for the claim that types cannot stand in causal relations, if we are to give up the appealing claim that types are created. Cameron himself does not supply one, although he cites Dodd who does attempt to justify (18) via this route:

statements seemingly reporting causal relations between abstracta can always be paraphrased in such a way as to reveal that the relata of the causal relation are really concrete.²⁴

To support this claim, Dodd cites Dummett:

To give a cause ... we must cite some contingent fact. ... No contingent fact about an abstract object can be cited that cannot more naturally be construed as a fact about concrete ones, for instance, the concrete object which the abstract object is 'of' [for example, the concrete line, which the abstract direction is of]: and hence we do not regard abstract objects as being themselves causally efficacious or the subjects of causal effects.²⁵

Note that if Dummett's claim is correct, then we would rehabilitate Hazlett's argument from the last section, as well as supporting Cameron's claim. The case against type-creationism

²³ *Abstract Objects*, at 49; see also 55-56.

²⁴ 'Musical Works as Eternal Types', at 431.

²⁵ Michael Dummett *Frege Philosophy of Language* (London: Duckworth, 1981), at 493.

would thus be two-pronged. But these are bold claims from Dodd and Dummett, and they do little to establish their truth. Dodd considers *a single* example and claims *without argument* that the concrete paraphrase he provides gives the correct causal picture.²⁶ Obviously this need not move us.

There is, perhaps, a presupposition in the quote above from Dummett that all abstract objects are *of* something. But given that types are not *of* anything in the appropriate sense, Dummett's claim about contingency above is not convincing. That is, even if abstract objects which are *of* something cannot stand in causal relations, it does not follow that abstract objects which are not *of* something cannot stand in causal relations. But although types are not *of* concrete objects, they do stand in intimate relations to concrete objects, namely their embodiments. So perhaps any contingent or causal claim that we can make about repeatable artworks, construed as types, can more plausibly be taken to be a claim about their embodiments? Neither Dummett nor Dodd provide any convincing reason for accepting that causal statements involving abstracta can *always* be paraphrased away, let alone that we ought to accept the resulting paraphrases *at the expense of* the face value claims involving abstracta, but I think we can see that the idea is in any case implausible.

In his work on mental causation, Yablo provides a criterion for assessing which of a range of putative causes is the best candidate to be the cause.²⁷ Yablo argues that in order to address the causal exclusion argument against non-physical causes, we must make use of the independently plausible claim that causes are proportional to their effects. I show below that when we apply this principle to causal statements involving repeatable artworks we see that it is repeatable artworks themselves, rather than any concrete surrogate, which are proportional to the target effect. So accepting Yablo's principle shows that, contra Dummett and Dodd, causal statements involving abstracta are sometimes better than causal

²⁶ 'Musical Works as Eternal Types', 431-432.

²⁷ S. Yablo, 'Wide Causation', *Philosophical Perspectives* 11 (1997), 251-281.

statements not involving abstracta. There is, then, no reason to deny that abstract objects can stand in causal relations, and so the first argument for the claim that abstract objects are not created is to be rejected.

Yablo's idea is that a cause, C, must be proportional to its effect in the sense that it 'is *enough* for the effect without being *too much*'.²⁸ More carefully, let us follow Yablo and say that

C is proportional to E iff it is both required and enough for E,

where

C is required for E iff none of its determinables screens it off from E,

C is enough for E iff it screens off all of its determinates from E,

and that

C1 screens C2 off from E iff, had C1 occurred without C2, E would still have occurred.²⁹

The notion of determinate and determinable that Yablo has in play here is a weak one, in that Y is a determinate of X =df Y necessitates X because X is immanent or included in Y.³⁰

Let's consider one of Yablo's examples to illustrate the idea. Consider the following two causal claims:

²⁸ 'Wide Causation', at 258.

²⁹ 'Wide Causation', 266-267.

³⁰ 'Wide Causation', 275 n22.

- (19) Her driving through the radar caused her to be ticketed
- (20) Her speeding through the radar sober caused her to be ticketed.

In the imagined scenario, neither of (19) nor (20) are true since her driving through the radar was not enough to be ticketed, whilst 'her speeding through the radar sober was too much, since her sobriety had nothing to do with it'.³¹

Perhaps those who think that abstract objects cannot stand in causal relations can appeal to Yablo's criterion of proportionality to support their claim? Unfortunately, proportionality supports the opposite conclusion, namely, that abstract objects can be part of the causal nexus. Consider the following:

- (21) His reading an Easton Ellis novel caused him to buy copies of all of Easton Ellis's other works.
- (22) His reading that copy/a copy of *American Psycho* caused him to buy copies of all of Easton Ellis's other works

(21) does not involve a proportional cause since, as it turned out, our reader only liked *American Psycho*, and so reading an Easton Ellis novel is not *enough* for our target effect. That is, reading an Easton Ellis novel does not screen off one of its determinates, namely reading *American Psycho*. On the other hand, reading a particular copy, or indeed some copy or other, is not required to secure the effect, since he could have read the first three chapters of one copy and the remainder of another and the effect would still have occurred. Moreover, it seems that if John reads some copy of *American Psycho*, there is some copy of *American Psycho* that John reads. But John would have gone book shopping if he'd read *American Psycho* without having read one of the actual copies, and so (22) brings in too

³¹ 'Wide Causation', at 259.

much in another way too. The obvious intermediary cause is that it was his reading *American Psycho* that caused him to buy the other novels. And this is borne out by Yablo's test: reading *American Psycho* is *required* for the effect, since it is not screened off by reading an Easton Ellis novel, and it is enough since it screens off reading that/a copy of *American Psycho*.

So, by appealing to proportionality, the creationist can support their claim that abstract objects can stand in causal relations *contra* Cameron, Dodd, and Dummett. In fact, the creationist need not claim with Yablo that what caused the effect is the event that is proportional to it, but only that if C is proportional to E, then it is *amongst* the causes of E. None of this, however, establishes that abstract objects can be created, although it does disable the objection to this claim that we have been considering. But if we accept Yablo's proportionality principle, we can, I think, secure the creationist claim that repeatable artworks are created.

Consider what the type-creationist takes to be a creative claim concerning repeatable artworks: Conan Doyle wrote *The Hound of the Baskervilles*. How are we supposed to paraphrase this into talk eliminating abstracta? Let us suppose that Conan Doyle wrote a single manuscript from which all subsequent copies of *The Hound of the Baskervilles* were generated. Let us call it 'MANUSCRIPT'. The following concrete paraphrase is clearly not acceptable: Conan Doyle wrote MANUSCRIPT. This is no good because Conan Doyle could have written *The Hound of the Baskervilles* without writing MANUSCRIPT: that is, MANUSCRIPT need not have been the source of all the copies of that work, for Conan Doyle could have written a different manuscript in a different medium and still have written *The Hound of the Baskervilles*. Nor will a concrete paraphrase in terms of the production of some manuscript indiscernible from MANUSCRIPT suffice, since indiscernibility is neither necessary nor sufficient for the identity of novels. So here we see that the obvious ways of paraphrasing away creationist talk about types fails, and it seems that no account will do

which does not mention *The Hound of the Baskervilles* which is, by hypothesis, an abstract object. We have no reason, then, not to take causal statements involving fiction construed as types at face value. And what goes for novels goes for musical works and other repeatable artworks too.

Cameron, however, is simply incredulous when it comes to created abstract objects and hence to type-creationism 'I can understand how I can causally manipulate the concrete world to create a table or a house, but creation of an abstract object sounds simply miraculous'.³² But there really is nothing mysterious about how we create such abstract objects. As we have emphasised, types do not float free of the concrete world in Plato's heaven. The creation of a type is linked to the creation of certain concrete objects, namely its embodiments, and it is by creating these individuals that we create types, just as it is by creating the Eiffel Tower, that we bring about the existence of {Eiffel Tower}. And so the first challenge to the *creation* of types fails.

5. Types are Eternal Existents

Although Dodd now accepts that abstract objects can stand in causal relations,³³ he still thinks that types cannot be created. This is because he endorses the following argument:

- (23) All types exist at all times
- (24) If a type exists at all times, it cannot be created.

Therefore

- (25) No type is created.

³² R. Cameron 'How to be a Nominalist and a Fictional Realist', in C. Mag Uidhir ed, *Art and Abstract Objects*, (Oxford: OUP, 2013), 179-196, at 180.

³³ *Works of Music*, Chapter 1.

Given that type-creationism rejects (25), and that (24) seems plausible, it is (23) which must be rejected, and it is clear that type-creationism is opposed to it. So what can be said in favour of (23)? Dodd argues for it as follows:

(26) Any type T exists at a time t, if there is a corresponding property, being a T which exists at t.

(27) All properties exist at all times.

Therefore

(28) All types exist at all times.³⁴

No one, I think, should be moved by this argument. To see this, consider the analogous argument:

(29) Any object O exists at a time t, if there is a corresponding property, $\lambda x.x=O$ which exists at t.

(30) All properties exist at all times.

Therefore

(31) All objects exist at all times.

No one who did not already accept (31) would be moved by this argument. Either the existence of the object O is required for the existence of the property $\lambda x.x=O$, or it is not. If it is required, then the claim that all properties exist at all times has nothing to recommend it. If it is not required, then (29) is false. Either way, the argument fails. Similarly, Dodd's argument is not compelling, since, although its premises *may* be individually plausible, as a package, they are not. Obviously Dodd would deny (29) and claim it is not analogous to (26). But intuitively both (26) and (29) concern impure properties, and as a property, $\lambda z.Fz$, is

³⁴ *Works of Music*, Chapter 3.

impure only if $\exists R \exists y \forall x (Px \equiv Rxy)$, both properties entail the existence of the associated entities, whether that be T or O. So anyone who denies that T or O exist at all times, will deny that impure properties exist at all times. Dodd's insistence that impure properties exist eternally means that we lose our grip on what impure properties are. Nevertheless, Dodd presents a defence of (27) so we must consider where Dodd's arguments go wrong.

First, Dodd offers a semantic argument for (27). One reason for positing properties is to serve as the semantic value of predicates. Dodd claims that

the very same semantic considerations that prompt us to posit the existence of properties also prompt us to suppose that these properties exist before it was possible for them to be instantiated.³⁵

In particular, he claims that both true and false sentences of the form

(32) 'a is F'

'commit us to the existence of the properties expressed by their predicates', in this case the property of being F, $\lambda x.Fx$.³⁶

Now presumably, what holds for properties, holds for objects, so that both the truth and falsity of sentences like (32) commit us to the existence of a as well as to $\lambda x.Fx$.³⁷ So, the falsity of 'Socrates is alive' commits us to the existence of Socrates. But there is clearly some sense in which 'Socrates exists' is false. That is, although Socrates used to exist, he no longer exists - he does not exist now. What the semantic consideration that Dodd points to shows, then, is that the truth or falsity of instances of (32) commit us to the existence of a

³⁵ *Works of Music*, at 64.

³⁶ *Works of Music*, at 65.

³⁷ I consider rejecting the claim that the falsity of (32) commits us to a and to $\lambda x.Fx$ below.

and $\lambda x.Fx$ at some time or other. But what is at issue between the type-creationist and Dodd is at which times do properties and types exist. That we can refer to an entity at t does not establish that the entity exists at t , but only that it does, did, or will exist. So issues of reference do not establish (27).

There is a related consideration, however, that is not met by distinguishing between these notions of existence. Dodd denies that 'a property can be instantiated by an object at t and yet the property not exist at the time at which it is instantiated.'³⁸ And what goes for properties, we may think holds of objects too, so that if Dodd is correct, an object cannot instantiate a property at t , if the object does not exist at t . These two theses naturally motivate

The Temporal Existence Constraint: A present tense sentence 'a is F' is true at t only if a exists at t and $\lambda x.Fx$ exists at t .

Could Dodd use The Temporal Existence Constraint to argue for (27)? It is hard to see how. First, Dodd would need to produce a true present tense sentence which ascribes a property of the form *being a T*, for some type T , which the type-creationist says does not now exist. Now it seems that we can refer to lost works such as, perhaps, Shakespeare's *Love's Labour's Won*, which the type-creationist can concede no longer exists. It then seems correct to say that

(33) The book I have in my hand is not a copy of *Love's Labour's Won*.

But assuming (a) that (33) ascribes the property of $\lambda x.x$ is not a copy of *Love's Labour's Won*, and (b) that this property exists iff [$\lambda x.x$ is a copy of *Love's Labour's Won*] exists, then by The Temporal Existence Constraint, we have it that the property $\lambda x.x$ is a copy of *Love's*

³⁸ *Works of Music*, at 61.

Labour's Won exists. But then, by (26) we have it that *Love's Labour's Won* exists, which is what the type-creationist denies.

The type-creationist can, however, deny that (33) ascribes a property. Rather than (33) ascribing $\lambda x.x$ is not a copy of *Love's Labour's Won*, the type-creationist may say it denies the ascription of $\lambda x.x$ is a copy of *Love's Labour's Won*. Taking our lead from the negative free logician, if we endorse The Temporal Existence Constraint, we should say that for any time, t , at which either a or $\lambda x.Fx$ do not exist, $\lambda x.Fx(a)$ is false at t , and so $\sim[\lambda x.Fx(a)]$ is true at t . If (33) has the form of $\sim[\lambda x.Fx(a)]$, then it can be true, even without the existence of the property of $\lambda x.x$ is not a copy of *Love's Labour's Won*, and so the Temporal Existence Constraint cannot be used to support (27).

Now although this negative free logical approach is controversial, and Dodd appears to reject it, Dodd must be willing to endorse it at least in some cases as he thinks that 'is a round square' does not express a property. But in any context 'this is a round square' is false, and so subject-predicate sentences can be false even when there is no corresponding property just the negative free logician says.³⁹

So that is how the type-creationist can reject the eternal existence of properties, if they endorse the Temporal Existence Requirement. However, it seems like The Temporal Existence Constraint is subject to counterexamples such as

(34) Socrates is dead

and

(35) Elvis is remembered by many,

³⁹ Dodd himself commits to the truth of 'The Round Square does not exist', *Works of Music*, 66.

since both (34) and (35) seem to be true, but neither Socrates nor Elvis now exist. But if we deny The Temporal Existence Constraint, Dodd's argument for (27) does not get off the ground. Denial of the constraint allows for 'a is F' to be true at t, even when $\lambda x.Fx$ does not exist at t. I conclude, then, that these semantic arguments for the eternal existence of properties fail.⁴⁰

But all this raises the question of at what time properties do exist, and this question will bring us to Dodd's second argument for (27). Consider the following three candidates for property existence:

The Weakened Principle of Instantiation: A property P exists at time t iff there is a time at which it is metaphysically possible for P to be instantiated.

The Principle of Instantiation: A property P exists at time t iff there is a time at which P is instantiated.

The Strengthened Principle of Instantiation: A property P exists at time t iff P is instantiated at t.

The first two principles entail Dodd's claim that all properties exist at all times, whereas The Strengthened Principle of Instantiation does not.⁴¹

⁴⁰ Of course, that the Temporal Existence Constraint fails for objects does not entail that it fails for properties, but there seems to be little reason to think that the truth of subject-predicate sentences is more demanding with respect to the existence of properties than with respect to the existence of objects.

⁴¹ The Weakened Principle of Instantiation only entails (27) assuming that what is metaphysically possible does not vary across time.

If the type-creationist is to avoid Dodd's argument against the creation of types, then she must reject the first two principles. Caplan and Matheson argue that the first two principles are to be rejected.⁴² If their argument is sound, then, these principles pose no threat to type-creationism. Their arguments are not compelling, however. First, Caplan and Matheson claim that if The Principle of Instantiation is true, a property can exist now in virtue of it being instantiated at some point in the future, and that this sort of backward metaphysical dependence is odd. Second, The Weakened Principle of Instantiation / The Principle of Instantiation are subject to the question of where a property P exists now, if P is not instantiated now? But these considerations are extremely weak. First, it is far from clear that, in general, the present cannot depend on the future, and so we need to be told why such dependence is, in this case, to be rejected. For example, whether or not I have hit the winning home run depends on how things go in the future. In any case, it does not follow from The Principle of Instantiation that the present does *depend* on the future. The principle only encodes a co-variation relation not a dependency relation. Second, without some general argument to the effect that something cannot exist in time without existing in space, what's wrong with the answer that uninstantiated properties exist nowhere? Indeed, Dodd explicitly says that properties are not located.⁴³ So for all Caplan and Matheson have said, one of the principles which entail (27) is true.

Regardless of the above considerations, Caplan and Matheson show that the type-creationist cannot endorse The Strengthened Principle of Instantiation. This is because, as well as (26), it is also plausible that

- (36) Any type T exists at a time t, *only if* there is a corresponding property, being a T which exists at t.

⁴² B. Caplan and C. Matheson 'Can a Musical Work be Created?', *BJA* 44 (2004), 99-108. Actually they only explicitly argue against The Principle of Instantiation, but one of their arguments carries over to The Weakened Principle of Instantiation.

⁴³ *Works of Music*, 48.

But from (36) and The Strengthened Principle of Instantiation, it follows that

(37) Any type T exists at a time t only if being a T is instantiated.

But (37) is inconsistent with, for instance, the conjunction of:

(38) Musical works are types.

(39) Musical scores are not tokens of musical work types.

(40) The existence of a musical score is sufficient for the existence of a musical work.

Given that (39) and (40) seem like data, the claim that musical works are types must go, if The Strengthened Principle of Instantiation holds.

It is clear that those who take repeatable artworks to be created types must reject The Strengthened Instantiation Principle. But such a rejection is not ad hoc, as the principle is independently implausible. As Dodd notes, given certain contingent facts about patterns of instantiation, The Strengthened Instantiation Principle is committed to the view that properties come into and then go out of existence as their instances come into and go out of existence. This is Dodd's reason for rejecting The Strengthened Instantiation Principle. Moreover, The Strengthened Instantiation Principle does not allow for properties that are never instantiated. But this consequence is implausible, since we can specify composite properties, such as being a talking donkey, in the absence of anything instantiating such properties. That is, some properties can be reduced to other properties, and so if we have the reduction base in the absence of instantiations of the reduced property, then we have the reduced property in the absence of any instantiations of it.

The type-creationist may, however, appear to be in a bind. On the one hand, The Strengthened Instantiation Principle is independently implausible, and untenable for the type-creationist. But on the other hand, The Weakened Principle of Instantiation / The Principle of Instantiation underpin (27) and Dodd's argument that types cannot be created. So it seems as if the type-creationist faces a dilemma: whether or not they endorse The Strengthened Instantiation Principle they cannot both maintain that types are created and that they have the correct persistence conditions to be identified with repeatable artworks.

This is, however, a false dilemma. What is required to allow types to be created is to reject The Weakened Instantiation Principle and The Instantiation Principle. It is not further required that The Strengthened Instantiation Principle be endorsed, as Caplan and Matheson suggest.⁴⁴ In particular, we can note that the instantiation of a property P at a time t is sufficient for the existence of P, without claiming that it is also necessary for the existence of P. Similarly, what is required to avoid problems with the persistence of properties and repeatable artworks is to reject The Strengthened Instantiation Principle, and this can be done without embracing either The Weakened Principle of Instantiation or The Principle of Instantiation.

To see this we need simply note that types, even created types, can exist when they have no tokens, and so the associated property of being a T has no instances. As we saw in §1 what is required for the existence of a type is the possibility of there being a token of that type, and what guarantees this is the existence of an *embodiment* of that type. By (26) then, being a T exists only if there exists an embodiment of T. This picture is exactly what is required to capture the intuitive persistence conditions of repeatable artworks, such as musical works: they can come into existence through the writing of a score, and the preservation of a score is thereby the preservation of the work, regardless of whether the work is ever performed. Moreover, the existence of uninstantiated types is not particular to

⁴⁴ 'Can a Musical Work be Created?', 128.

repeatable artworks. Given the productivity of language, we know that there are sentences that never have and never will be uttered or inscribed.

The principles concerning the existence of properties above were all couched in terms of a property's *instances*. But some properties, including *being a T*, have more complicated dependencies on the concrete world. What is important for the existence of such a property is not that there is an instance of it, or that there will at some time or other be an instance of it, or even that it is metaphysically possible that there be an instance of it, but rather that there is an *embodiment* of the corresponding type. In the presence of an embodiment of a type, there is a condition which something would have to meet to count as a token of that type, which is to say that the property of being a T exists. But given that the existence of a type's embodiments can vary temporally and modally, so too can the existence of the property of being a T. The arguments of this section against type-creationism are unsuccessful precisely because they fail to take into account the complex ways in which types and their associated properties are related to the concrete world, and in particular because they fail to take into account embodiments of types other than tokens.

Dodd, perhaps, would object that on this picture we countenance the intermittent existence of properties as embodiments of types go out of and come back in to existence. This is a possibility on his conception of types as individuated by internal properties, but it is not a possibility when types are not so individuated. On my conception of created types, once the conditions for the instantiation of the corresponding property, being a T, have gone out of existence, it cannot come back into existence given that such types trace historical paths. For example, now that all of the embodiments of *Love's Labour's Won* have been destroyed, there will never be a copy of this work, even if someone were, coincidentally, to write a work word-for-word identical with it.

Conclusion

I have briefly sketched an intuitive picture of repeatable artworks as created types. This picture has been rejected by those who make sweeping claims about abstract objects in general, or else about types in particular. We have seen on examination, however, that these claims are false.

In their own ways, these arguments against type-creationism all make the same mistake. They assume either that abstract objects float free of the concrete world, or are tethered to it in some particularly simplistic way. For instance, Dodd assumes that properties are either broadly Platonic, existing unaffected by the current goings on in the concrete realm, or else exist only when instantiated. But this is just to ignore the creationist message as set out by Thomasson in §1. For the creationist, a type and the associated property of being a token of that type are dependent abstracta, which are tethered to the concrete world in the various ways described above. These ways include, but are not limited to, having tokens or being instantiated. As such, they do not fit into traditional ontological categories: types are neither Platonic eternal, unchanging entities, nor are they to be identified with concreta or constructions from them; and properties are not to be conceived as either Platonic or Aristotelian. Given the intuitiveness and the coherence of the picture sketched above, and the failure of the objections to the view considered here, we should pursue in more depth the idea that repeatable artworks are created types along the lines I have suggested.⁴⁵

⁴⁵ Thanks to the AHRC and The Royal Institute of Philosophy for funding my PhD in which some of this material was originally developed. Thanks also to Craig French, John Hyman, Nick Jones and especially Mike Martin for comments. This essay is dedicated to the memory of my brother Neil who died far too young during the time I was writing this paper.