

Type Realism Reconsidered

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ABSTRACT

Realism about types is the view that types are abstract and repeatable objects. Although type realists seem to agree that types, unlike properties, are objects in their own right, they argue that there is a metaphysically intimate tie between the existence conditions of types and properties. In particular, most type realists believe that types are, in a certain sense, determined by the properties that underlie them. I argue that this is a mistake, especially for those type realists who believe that social and cultural types such as works of music and fiction or words are artifacts. I offer an alternative version of type realism where social and cultural types are dependent objects that should be understood in analogy with concrete artifacts.

I. INTRODUCTION

Type realism is the view that there are types. Types are abstract repeatable objects that have or are capable of having multiple tokens in different places at the same time. The category of type seems to be particularly useful for the ontological classification of various kinds of entities such as works of art (works of music and fiction) and other social objects such as words and computer programs. Because of this *prima facie* usefulness, type realism is a popular view within the ontology of art. This does not mean that there are no live alternatives.¹ In fact, the categorial questions, that is, questions concerning the ontological category to which works of art belong, are still widely discussed in the literature. For the present purposes of our discussion, however, I assume realism about types, setting aside its alternatives, and focus my attention on a particular debate amongst type realists, which, as I argue below, is crucial for capturing the ontological nature of social objects mentioned above.

Type realism or the type-token theory is not a unified house. There are a number of very different views one can choose from depending on one's answers to further questions about the nature of types, that is their identity and persistence conditions. For the purposes of our discussion here, I focus on two competing type realist views: Platonism (where types are eternal and repeatable entities) and creationism (where types are creatable and repeatable entities). On both views, types are considered abstract objects. However, there are disagreements regarding the criteria for classifying something as an abstract entity. For the purpose of our discussion below, I take abstract objects to be entities that lack a unique spatial location.

Platonists seem to agree that there is a metaphysically intimate tie between the existence conditions of types and properties (Wolterstorff 1980, 51, 51; Dodd 2007, 60). This alleged metaphysical tie plays a central role in some of the Platonist arguments against creationism. Interestingly, in their responses against anti-creationist arguments, a number of creationist philosophers implicitly or explicitly accept the existence of this tie and choose to build their defense around certain controversial metaphysical claims about the nature of properties. One of the consequences of this mostly tacit agreement between Platonist and creationist philosophers is that our attention is shifted to the metaphysics of properties, and more particularly on competing proposals regarding the existence conditions of properties. I argue that this is a mistake on the part of creationists. I submit that types are dependent generic objects and that their existence conditions, at least in principle, can be significantly

different from the existence conditions of corresponding properties. I further argue that certain types, especially social and cultural types, are abstract artifacts that depend on various activities of human individuals or communities. I complete the discussion by briefly reviewing a number of advantages of this view and responding to some objections.

II. TYPE REALISM AND THE EXISTENCE CONDITIONS OF TYPES

Most creationist philosophers argue that the existence conditions of social and cultural types essentially involve some human activity, the kind of activity that results in the production of a new abstract entity—a musical work, a work of fiction, or a word—that did not exist prior to the creative actions of their authors.² Platonists, on the other hand, argue that types exist eternally, and thus their existence cannot possibly depend on human activities. On the most developed forms of Platonist views, however, the fact that types exist eternally does not mean that one cannot specify their existence conditions. According to Nicholas Wolterstorff, for instance, the existence of a type is determined by a particular property, the property that is associated with the type (Wolterstorff 1980, 51). This idea that the existence and the identity of a type are determined by its property-associate is picked up by others in the literature. Julian Dodd, for example, relies heavily on Wolterstorff's claim above and employs it as a premise in his argument against creatable types. Here is Dodd's formulation of this claim:

T: For any type K and any time *t*, K exists at *t*, if its property-associate, being a *k*, exists at *t* (Dodd 2007, 60).

(T) states the existence conditions for all types and has a significant role in both Dodd's and Wolterstorff's arguments for the eternal existence of types. According to this line of argument, types exist at all times, since (a) (T) is true, and (b) all properties exist at all times (Wolterstorff 1980, 88–89, 88–89; Dodd 2007, 60).³

One might think that the disagreement between Platonist and creationist authors stems from the difference between their attitudes towards the existence conditions of types. After all, the debate between Platonism and creationism is, at least in part, a debate about the existence conditions of social types. What is interesting is that, in response to the argument above, some creationist philosophers seem to grant (a) but reject (b). For instance, creationist authors like Robert Howell argue that Dodd's argument is not sound because some properties—more specifically, impure properties—do not exist eternally (Howell 2002, 114).⁴ Other creationists like Lee Walters (2013, 476) follow Howell and argue that not all properties exist eternally.

It seems that for many, (T) is one of the constitutive principles of type realism.⁵ Therefore, a better understanding of (T) and its role in establishing the existence conditions of types is required.

III. TYPES AND THEIR PROPERTY-ASSOCIATES

Types are often constructed as generic objects that can have multiple instances at any given time. Although both types and properties are repeatable, the former category are characterized as objects in their own right, whereas properties, as predicables, are attributable only to objects, events, or properties (Wetzel 2009, xii; Dodd 2007, 152, 152; Howell 2002, 116). Virtually all type realists subscribe to a version of this characterization of types. They seem to believe that types have a distinct metaphysical profile that cannot be captured under the category of properties. I follow this consensus and assume that types are objects in their own right. In fact, I argue that type realism can be significantly improved if this idea is taken more seriously.

Most type realists commit to the idea that types and properties are intimately related. The thesis that was introduced by Wolterstorff and then adapted by Dodd and others is an attempt to capture the exact nature of this metaphysical tie. (T), it should be noticed, assumes a crucial ontological claim: for every type K, there exists a property-associate *being a k*. This is the result of a one-to-one function that maps types onto properties.⁶ Given that there are property-associates for types, (T) establishes existence conditions of types.

The agreement on (T) does not yet tell us exactly what a property-associate of a type is. Dodd, for instance, seems to think that *being a k* is not a complex property (Dodd 2007, 74). Howell, on the other hand, argues that the property-associate of an indicated type K is an impure complex property (Howell 2002, 114). There seem to be two main ways in which a type's property-associate can be identified. The first is to identify the property-associate of a type with the property of being a token of that very type. That is, the property-associate of a type K is the property of *being a k*. Take, for instance, the type The Polar Bear. The property-associate of The Polar Bear is the property *being a polar bear*.⁷ Similarly, for the musical type The Symphony No.7 in A Major by Beethoven, the property-associate of this type is *being a Symphony No.7 in A Major*. The property-associate of a type, on Dodd's view, provides a condition that something must meet in order to be a token of the type; it determines the identity of the type (Dodd, 2007, 19). Thus, *being a k* is a property that a concrete living being—as in the case of The Polar Bear—or a sound event—as in the case of The Symphony No.7 in A Major—must instantiate in order to be a token of their prospective types. One important problem with this proposal is that if the property-associate of a type determines its identity, it does so in a trivial manner. The property says nothing informative about the nature of the type, nor does it provide a non-trivial way in which the type can be individuated. More interestingly, once we agree that there is a strong metaphysical tie between a type and its property-associate, an alternative view to type realism naturally presents itself. This is the view that identifies or reduces a type to its property-associate. Philip Letts, for instance, argues that the property view of musical works is preferable to type realism (Letts 2018). I do not reproduce his arguments here, but I would like to point out that the view described above is particularly vulnerable to the kind of arguments presented by property theorists such as Letts.

Most type realists seem to prefer a different way of identifying the property-associate of a type. On this view, the property-associate *being a k* in fact stands for a set of qualitative properties that determine the condition for something to be a token of the type K. This solves the problem of ascribing trivial identity conditions to types. Dodd, for instance, argues that the property-associate of a musical work K as a type of sound-sequence event is a set of acoustic properties that are normative within K (Dodd 2007, 201). A property is normative within type K if and only if (1) K is a norm-type, that is, a type that accepts both correct and incorrect tokens, and (2) it is impossible for there to be something that is a properly formed token of K yet lacks the property (32). On Dodd's view, then, the identity of a type is determined by a set of properties that are normative within the type. This set of properties comprises the property-associate of the type and thus provides its individuation conditions. Furthermore, since the existence of the type is determined by the existence of its property-associate, as stated by (T), the type exists just in case its property-associate exists. Assuming that all properties exist eternally, Dodd concludes that all types exist eternally. Howell's response to Dodd's arguments is somewhat complicated, partly due to Howell's further distinction between types and what he calls 'patterns'. A pattern is an abstract entity on Howell's view, that is, a mere "arrangement of parts or features that is possessed by anything having the associated property" (Howell 2002, 116). Howell accepts a principle similar to (T) for patterns. He argues that patterns exist if the relevant properties or, in Dodd's language, their property-associates exist (Howell 2002, 116.). Since the property-associates for some patterns are eternally-existing properties such as being a sound structure, at least some patterns must exist eternally. However, initiated types such as musical works are indicated sound structures that are associated with impure properties such as having the basic sound structure S and also being produced in a way that is properly connected to the composer's act of indication at *t*. A pattern such as a pure sound structure, according to Howell, takes on a property (e.g., being used in a community in the way specified by the practice) and becomes an initiated type (120). The type and the pattern are distinct entities because the former, unlike the latter, has the aforementioned property as its essential property. This impure property, Howell argues, cannot exist eternally, as its existence depends on what is essentially involved in its structure. This is because the composer or her act of indication does not exist eternally, nor does the property-associate of an initiated type. This enables Howell to contend that initiated types are created abstract entities.

It seems that Howell and Dodd agree that the existence of the entities that Howell refers to as "patterns" depends on their property-associates. Disagreement arises because Howell has a different view on what the property-associates of types are. On Howell's view, for social and cultural types, these

properties are tightly tied to the practices of the relevant individuals and the community and thus, *pace* Dodd and Wolterstorff, do not exist eternally. Therefore, Howell's creationist account of types may rely entirely on his views about the existence conditions of impure properties. That is, Howell may accept (T) for indicated types as well as patterns and yet argue that the former are creatable entities.⁸ A further complication in Howell's defense arises because he seems to reject (T) for types. In particular, he rejects the claim that for every property there exists a corresponding type (Howell 2002, 110). However, Howell rejects this claim not because he thinks that the underlying idea behind (T) is wrong. In fact, Howell accepts what is essential to (T), namely the idea that "types are in a certain sense determined by the properties that underlie them" (105). What he rejects is the claim that every property determines a type. On Howell's view, only those patterns which have some role in causal chains in nature or in human practices become types (123–124). The property-associates of types, then, will reflect these roles and thus cannot be pure properties. For instance, the property-associate of, say, a musical work *W* is the following complex property *w*: *having the basic sound structure S and also being produced in a way that is properly connected to the acts of indication of composer C at time t*. The sound pattern *S* takes on the property *w* and becomes the musical work *W*. The work *W*, unlike *S*, instantiates *w* essentially and is thus distinct from an entity that instantiates this property only accidentally. If the scope of properties in (T) is restricted to such complex impure properties, then Howell seems to have no reason to reject (T).

A similar claim can be made for Jerrold Levinson's account. Although Levinson himself does not explicitly address these issues in this manner, he does accept (T) for what he calls 'implicit' or 'pure' types. Implicit types on Levinson's view exist "when a general framework of possibilities is given" (Levinson 1980, 21). Since these structures are always capable of instantiation, their existence pre-dates "the point at which it is noticed, recognized, mentioned, or singled out" (Levinson 1980, 21).⁹ Therefore, we can conclude that (T), with some reservations or modifications, is accepted, or at least it remains unchallenged, by Platonists and some creationists. In the next section, I argue that if we accept the claim that types are objects in their own right and thus should not be constructed as property-like entities, we have good reasons to deny (T). I then provide an account of types where the existence conditions of types as dependent objects can and, for social types, should be different from the existence conditions of their property-associates.

IV. TYPES AS OBJECTS

Type realism is characterized by the claim that there are types. This characterization crucially requires another commitment that has already been briefly discussed, that is, that types are objects in their own right. This further commitment is crucial for maintaining type realism, as without it there is little reason left to postulate types as additional items in our ontology alongside properties.¹⁰ I do not argue for the existence of types here.¹¹ I argue, however, that the view which takes types to be property-like objects or object correlates of properties is wrong. I submit that the principle (T) that was first formulated by Wolterstorff and then adopted by Dodd is a version of this view.

(T) states the existence conditions for a particular kind of objects, namely types. The main reason given in defense of (T), as I see it, is the claim that the identity of a type is determined by a condition that something must meet in order for it to be a token of the type. The claim originally belonged to Ian Rumfitt, but it is Dodd who relies his theory of types on its basis (Rumfitt 1993, 488, 488; Dodd 2007, 19). The identity of a type, on Dodd's view, will determine its individuation conditions. Accordingly, then, two types are identical if and only if they lay down the same condition on their tokens (Dodd 2007, 19). This condition, according to Dodd, is nothing but a property. Therefore, the identity of a type is determined by a property that something must instantiate in order to be one of its tokens (60). One might think that this claim has some initial plausibility and an intuitive appeal for repeatable objects such as types. Some type realists disagree. Wetzel, for instance, argues that there is in fact no non-trivial property (i.e., a property distinct from *being a token of type K*) such that all tokens of a type such as a word type do have in common (Wetzel 2009, 70). Even if, however, we concede this point to Dodd, it remains unclear how (T) can be justified based on this controversial claim. In other words, assuming that the identity of a type is determined by its property-associate, it is still unclear why the existence conditions of a type would be identical to those of its property-associate.

One way to evaluate the plausibility of (T) is to examine whether there are any other kinds of object whose existence is as tightly tied to their corresponding properties as types are tied to their property-associates. We should leave aside extensionally-defined objects such as sets and mereological sums as their existence depends on their members or parts. This leaves us with, among other things, a wide variety of concrete contingent objects. There are, for instance, complex material objects such as Socrates or the table I am working on now. For such objects the candidate principle slightly modified from (T) is the following:

C: For any concrete object O and any time *t*, O exists at *t*, if its property-associate, *being O*, exists at *t*.

One crucial difference between (T) and (C) is the property that is associated with the object. In the case of (T), the property-associate of a type K is a property that its token must have in order for it to be a token of K. On (C), however, the property-associate is the non-qualitative (identity) property *being O*. The difference between (T) and (C) stems from the difference between repeatable generic objects and non-repeatable particulars. Having said that, (C) captures the core idea behind (T), that is, that the existence conditions of an object are determined by the existence conditions of its property-associate.

(C) is a very difficult principle to defend. Even Dodd himself claims that the eternal existence of impure properties does not imply the eternal existence of their corresponding concrete objects (Dodd 2007, 72). Therefore, Dodd would seem to agree that (C) is not a plausible principle for concrete objects. The reason seems to be that (C)—by assuming the eternal existence of all properties—implies that all concrete objects exist eternally. Such a conclusion strikes many as absurd, prompting a rejection of (C). However, the falsity of a principle similar to (T) for extensionally defined objects or concrete particulars does not necessarily demonstrate the falsity of (T) itself. One might argue that the characteristics observed in specific concrete objects and their relationships with their property-associates do not necessarily apply to generic objects like types and their relationships with their property-associates.¹²

This objection would have been stronger if types were the only sort of generic objects for which (T) or a similar principle yields counter-intuitive results. We have already observed that (T), when combined with the eternal existence of properties, implies that entities like musical or fictional works, as well as linguistic entities such as words, are not in fact artifacts. Since Platonist philosophers like Dodd are not swayed by this line of reasoning, let us turn our attention to another category of generic objects, namely kinds, to assess whether a principle similar to (T) produces intuitive implications. For instance, consider a biological kind like HUMAN or an artifactual kind like TELEPHONE. Kinds can be regarded as generic entities that accept particular objects as their members. The kinds HUMAN and TELEPHONE have property-associates, namely *being a human* and *being a telephone*. For the sake of simplicity, let us assume that the property *being a human* stands for a complex genetic property, while the property *being a telephone* is a complex functional property. A principle resembling (T) would imply that the existence of the kinds HUMAN and TELEPHONE depends on the existence of their property-associates. If properties exist eternally, as Dodd argues, then both kinds would also exist eternally, suggesting that the kinds HUMAN and TELEPHONE preexist their first members. However, it is quite plausible, I believe, to argue that not only were there no humans or telephones a few moments following the Big Bang, but also that there were no corresponding kinds at that time. Although the nature of kinds is still an open and relatively unexplored question, it seems that their existence is somehow dependent on their members. The existence of particular members belonging to a specific kind may, in turn, depend on the instantiation of certain properties associated with that kind. For instance, determining whether a living being or an inanimate object falls within the kinds HUMAN or TELEPHONE may require the instantiation of specific genetic or functional properties. However, this does not imply that the existence of the kind itself depends on the existence of a particular property, but rather on whether those properties are indeed instantiated. While certain views, such as those considering properties as immanent universals, may identify the existence conditions of properties with their (first) instantiations, it is important to recognize that the questions regarding the existence conditions of properties and their instantiations are distinct. This suggests that the existence conditions of kinds and their associated properties should not be tightly tied, as a principle similar to (T)

would imply. If this is the case, one could consistently maintain that properties exist eternally while also denying that kinds like HUMAN and TELEPHONE preexist their very first members. If we consider kinds and properties as distinct entities, we should expect, or at least acknowledge the possibility, that their existence conditions may differ. This would be true even if we accept that the identity of kinds (and not merely their members) are determined by certain properties. However, this crucially requires rejecting a principle like (T).

The arguments presented thus far, if correct, demonstrate that a principle akin to (T) leads to highly problematic, if not outright mistaken, implications for various objects such as sets, mereological sums, concrete particulars, and even generic entities like kinds. However, despite these objections, a proponent of (T) might still maintain its truth and argue that, as (T) stipulates, types are the only (generic) objects whose existence is tightly tied to their corresponding properties. As I mentioned earlier, I find no compelling theoretical justifications for such a position. Nevertheless, the lack of theoretical motivation is not the sole issue with (T). Another problem with (T) has already been briefly addressed. This is the problem of maintaining type realism on the face of challenges from the property theory of musical works. I do not rehearse here the arguments provided by the property theorists such as Letts. Instead, I discuss further reasons why Dodd's theory of types, and especially the role (T) plays in his Platonism, make it very difficult to distinguish his theory from a (modified) property theory of musical works. Remember that, on Dodd's view, the property-associate of a musical work *W* is the set of (acoustic) properties that a sound event must instantiate in order to be a properly formed instance of the work:

According to the type-token theory I recommend, *In This House, On This Morning* is a norm-type: specifically, a type of sound-sequence-event, ψ , whose tokens, if they are to be properly formed, must have all of the set Σ of properties normative within ψ . Since this type's property-associate—*being a properly formed instance of ψ* —exists eternally, so does the type: the musical work. Musical Platonism results. (Dodd 2007, 99).

In a footnote, Dodd tells us that the property *being a properly formed instance of ψ* is nothing but the property of instantiating every member of Σ (Dodd 2007, 99).¹³ We have, then, three entities that need to be carefully distinguished. There is the type ψ , the set Σ of properties normative within ψ , and the property-associate of ψ , namely the property of instantiating every member of Σ . Dodd insists that the musical work *W* cannot be identified with the property-associate of ψ . He also insists that a work cannot be a set, and thus he rejects identifying *W* with Σ (Dodd 2007, 41). Although ψ cannot be identified with its property-associate or the set Σ , these entities are closely related. According to (T) the existence conditions of ψ and of its property-associate are the same (Dodd 2007, 67). Similarly, the existence conditions of the property-associate of ψ and the set Σ must be the same. This is because, given that the property-associate of ψ is nothing but the property of instantiating every member of Σ , both the property-associate of ψ and Σ exist when all the members of Σ exist. These three different kinds of entities, the type, its property-associate, and the set of properties normative within the type, then, share their existence conditions: they exist when all the members of the set Σ exist. Moreover, Dodd seems to suggest that the identity and the individuation conditions of these entities are very similar, if not exactly the same. Their identity is determined, once again, by the members of the set Σ . This, I think, should at least make us suspicious that types on his account are redundant for our theoretical needs and thus should be dismissed altogether, or perhaps identified with one or the other remaining entities. The latter, as I take it, is roughly Letts's property theory of musical works. Dodd's main defense against the property theory of musical works is that musical works, as well as words and fictional works, behave like objects rather than properties. Although I do not argue for this claim here, I think Dodd is right. However, this doesn't tell us why the other alternative—namely, identifying a musical work *W* with the set of properties normative within *W*—is to be rejected. This alternative is untouched by Dodd's charges against the property view as sets are objects in their own right. Therefore, Dodd's attacks on the property view do not apply here. In the literature, the idea of identifying a musical work with a set has already been considered and readily dismissed. The reasons behind this attitude are beyond the scope of this article.¹⁴ Having said that, the view that has just been mentioned is quite different from the ones that are considered in the literature. When the set view of musical works is considered, it is often assumed that we are talking about a view that identifies the musical work with the set of its performances. However, the view under discussion identifies the work

with the set of properties that determine the conditions for the correct performance of a work. I do not mean to defend this view here; rather, I wish to show that Dodd's theory of types makes it such that the very entities it postulates seem to render the ontological category of types redundant, or at least theoretically undermotivated.

Admittedly, the arguments presented here against Dodd's theory of types are not conclusive. Dodd would insist that entities such as musical and fictional works or words, which appear to be social objects, are eternal types and not artifacts. According to his view, their existence is completely independent of human activities and does not depend on us in any way. While these consequences have faced criticism from creationist philosophers, I do not delve into those critiques here. Dodd attempts to mitigate the counter-intuitive implications of his Platonism by suggesting that they are "less counter-intuitive than might be supposed" (Dodd 2007, 99). However, part of what makes Dodd's Platonism appealing against its creationist alternatives is his arguments for the claim that "Platonism is the position where any type-token theorist inevitably ends up" (Dodd 2007, 99–100). Without these arguments, the motivation for Platonism seems to be lacking. As I demonstrated earlier, (T) plays a central role in Dodd's arguments. The arguments presented above cast significant doubt on the truth of (T) and, consequently, Dodd's claim that Platonism is the inevitable conclusion of the type-token theory. I argue below that the type-token theorist can do better than Platonism. I briefly sketch a theory of types where types are dependent entities. On this view, the existence of social and cultural types depends on the activities of their makers, the creative intentions of these makers that direct their activities, and the concrete products of these activities.

V. ARTIFACTUAL TYPES AS DEPENDENT OBJECTS

In what follows, I focus mostly on artifactual types such as musical works, words, works of fiction, and so on. The account developed below, however, can be extended to natural types, or any type that depends on some further objects, events, properties, and so on. Types are often taken to be "thin entities" or mere "token-binders" (Dodd 2007, 54). Dodd's account is an example of such an approach. Platonists, however, are not alone in this attitude. As I have discussed above, some creationist philosophers such as Howell and Levinson seem to be at least sympathetic to this general position. Their attitude towards (T) shows us how influential Wolterstorff's views on types and their elaborate defense by Dodd have been in the literature. The present account is a departure from this way of constructing types. On my view, types are not property-like entities, nor are they the object equivalent of some pure or impure properties. Types are not merely classification tools, either. The roles they play in scientific inquiry and everyday life extends well beyond grouping certain entities into preestablished categories with precise boundaries based on shared properties. This is not to deny that certain types such as sound structures, orthographic or phonological forms, and monotonous types such as Red Thing (assuming that there are such types) are mere groupings of objects or events. These types are sometimes called descriptive types (Anderson and Dodd), pure or implicit types (Levinson), or patterns (Howell). Artifactual types, however, are more than mere groupings based on a shared property. This is perhaps why even Platonists such as Wolterstorff and Dodd need a distinct category for such types, which they call norm-types. Norm-types, on their view, are types that can have properly- and improperly-formed tokens. The hope is to capture our scientific, artistic, and everyday practices where there are entities or events which are taken to be instances of such types, yet which lack some of the properties that the properly formed tokens of these types must instantiate. This solution, however, still misconstrues what roles social and cultural types play in such practices. Words, for instance, are often taken to be a paradigmatic example of the type-token distinction. Word types as "thin entities" or "token-binders" are merely categories in virtue of which we classify certain inscriptions or utterances into preestablished and well-formed groups. This may be true, but the roles that word types play in language go well-beyond being mere tools of categorization. The primary role that word types play in human language and in human life in general is to communicate thoughts, emotions, and desires between members of linguistic communities. Due to some contingent biological facts about humans or human natural languages, word types have to accept some flexibility—the kind of flexibility, for instance, where there are no features that all and only tokens of the same word share in common except that they are tokens of the same word.¹⁵ Words also seem flexible in terms of their meaning(s)

and form(s). I do not argue for this claim here due to limited space but, at least intuitively, words seem to go through changes in their meanings and forms of their typical tokens.¹⁶ If that is correct, then it seems clear that word types as linguistic tools do more than classifying or categorizing objects and events. One might argue that all the roles that word types play are possible because word types are token-binders. This may well be true, but notice that word types and the roles they play require dynamic and flexible classifications. This provides a further reason not only to take them as objects in their own right, but also to understand them in analogy with artifacts of other kinds. Both concrete and abstract artifacts are dependent objects that are created by human activities and are capable of change by losing or gaining certain properties. The account I briefly elaborate and defend below aims to do exactly that.

Artifactual types such as musical works, words, and works of fiction are, on this view, dependent objects. They depend on certain human activities. To demonstrate the dependence relation between types and these activities, I follow Amie Thomasson (1999) and use modal existential dependence. Thomasson's artifactual theory of fiction is similar to the account defended here. One crucial difference is our use of the modal existential dependence. Thomasson seems to be committed to the explanatory role this dependence relation plays in her theory.¹⁷ I, however, wish to remain neutral on this issue and use modal existential dependence only for demonstrative purposes. The main reason that I choose this particular concept of dependence is its simplicity. A further advantage of appealing to this particular dependence relation is its intended scope of explanation. Modal existential dependence—unlike other non-causal dependence relations such as grounding—attempts primarily to explain the existential dependence relations between objects, events, properties, and so on. Since our goal here is to provide an account for the existential dependence of artifactual types on human activities, the modal existential dependence as a theoretical tool, with its simplicity and clarity, meets our needs. On this view, then, the existence of an artifactual type *W* can be explained as follows:

DEP: Necessarily, an artifactual type *W* exists, only if certain human activities and their products exist.

The dependence base of *W*, that is the entities and events on which *W*'s existence depends, includes not only certain human activities but also some of their concrete products. Take musical works, for instance. On this view, the existence of the work as a type depends on the activities of a musician and the products of such activities, such as a score, the first performance, or even a mental event of some kind. The work, as a type, is indeed associated with certain properties. These properties may include aspects such as the sonic profile of the piece, the identity of the composer, the contextual factors surrounding the composition, and various aesthetic qualities associated with the work. While these properties contribute to the identity of the musical piece and help to determine which sound events count as performances of the work, they do not determine the conditions for its existence. Instead, the work's existence depends on the existence of the elements comprising its dependence base.

The presented account of abstract artifacts is only a rough sketch and requires further development. However, I believe that it already offers valuable theoretical tools to address some of the challenges faced by other creationist theories. In the remainder of this article, I focus on highlighting its advantages over its main rival, Platonism, as well as other alternative creationist views. This discussion is concise. Nonetheless, in conjunction with my arguments against the plausibility of (T), it contributes to one of the main objectives of this article, which is to strengthen the case against Dodd's claim that Platonism is an inevitable conclusion of the type-token theory.

The account developed here solves various theoretical problems and responds to arguments raised against creationism. It does so without committing to any obscure metaphysical claim about the nature of abstract objects, causation, or creation. Let us begin with a well-known argument against the very idea of creationism. Many have argued that abstract objects by their very nature cannot be created. This is because, the argument goes, creation of an abstract object would require causal interactions between an agent and some abstract entity. Since abstract objects cannot participate in causal relations, they cannot be created (Dodd 2000, 431, 431; Katz 2000, 148, 148; Cameron, 2008, 296). Most creationists respond to this argument by rejecting the claim that abstract objects are causally inert (Howell 2002, 117–118; Trivedi 2002, 79, 79; Walters 2013, 469). The discussion between

creationists and their opponents, then, turns on the very distinction between abstract and concrete entities. The account outlined here solves the problem of creation without necessarily making controversial claims about the nature of abstract objects. Creation on this view is nothing but some agent's bringing about the conditions on which an abstract object such as a musical work or a word depends. This dependence is metaphysical in nature. Once all the entities, events, or properties on which the abstract objects ontologically depend exist, the abstract work comes into existence. The coming into existence, however, does not require any causal interaction between some human agent and an abstract entity. Causal process occurs only at the level of concreta when the agent causally manipulates some part of concrete reality. This process often results in the creation of a concrete artifact on which the abstract entity depends. A work of fiction, for instance, comes into existence as a result of some author's creating a concrete manuscript. The manuscript, along with its author's activities, is what the novel existentially depends on. The novel, then, is created once all the elements that the novel's existence depends on come into existence. This concept of creation explains the creation of both concrete and abstract artifacts and thus unifies our theory of how creation of artifacts in general occurs.¹⁸

The Platonist type-token theory has been quite influential. This is so even for creationist authors who reject some of the consequences of the Platonist view. To avoid those consequences, creationists often commit to controversial metaphysical theses about the nature of abstract objects and/or creation. These difficulties have led some philosophers to give up on the type-token theory altogether and provide an alternative ontology that proposes novel ontological categories. One such theory is proposed by Guy Rohrbaugh (2003). Rohrbaugh identifies three features that any theory about the nature of social abstract artifacts such as photographs and musical and fictional works must meet. According to Rohrbaugh, repeatable artworks such as musical works are temporally flexible in the sense that the work's intrinsic properties can change over time. These entities are also modally flexible, as they might have had different intrinsic properties. Finally, Rohrbaugh, like creationists, argues that these entities are temporally located in such a way that they have a beginning and may cease to exist (2003, 178). Rohrbaugh, after examining various alternatives for type-token theories, concludes that these theoretical demands cannot be met by type realism (2003, 178). Rohrbaugh's alternative theory places multiple artworks into a category that can be called abstract particulars. These works as abstract particulars, unlike types, are not repeatable. However, on Rohrbaugh's view, abstract particulars have occurrences. "The occurrence of" relation is explained in terms of ontological dependence. That is, the work ontologically depends on "a causally-connected series of physical (sometimes mental) particulars" (Rohrbaugh 2003, 198). Rohrbaugh's proposal received extensive criticism from Platonist philosophers like Dodd (2007, 143–156). The main problem, as I see it, has to do with Rohrbaugh's notion of embodiment, which is supposed to replace the notion of repeatability. On his view, a work does not have an instance when it is, for instance, performed, but it has an occurrence that is causally connected to the first embodiment of the work (Rohrbaugh 2003, 191–192). I do not discuss here the plausibility of Rohrbaugh's alternative ontological account. What I hope to have shown is that the three criteria that motivate Rohrbaugh's departure from the type-token theory and that move towards postulating novel ontological categories can in fact be accommodated within the type-token theory itself. Therefore, one of the advantages of the view submitted here is that it can explain how multiple works of art are creatable and destroyable and temporally and modally flexible.

One might argue that the proposed ontology of types requires a radical departure from the established views on the nature of types. This is partly true. After all, the proposed account relies on the rejection of (T), which is accepted by some type realists and left unchallenged by others. Having said that, despite its differences from extant type realist accounts, what is proposed here is still a form of type realism. I share the same significant set of commitments with other type realists that, for instance, there are types; that types are repeatable objects; that types are abstract; that types are objects in their own right. Realists about types do, of course, disagree about the exact content of these claims and their consequences. Similarly, the point of departure for the present account begins, in fact, with the last claim with which both Platonist and creationist philosophers agree: types, unlike properties, are objects in their own right. The main argument of the article takes this claim as its starting point and develops an account where artifactual types are dependent objects and should thus be understood in a similar fashion with their concrete cousins. The theory provides a further advantage, namely that it comes with no additional theoretical cost. No obscure metaphysical claim or introduction of novel

ontological categories is required. What is required is to take one of the main premises of the type-token theories theoretically seriously, that is the claim that types are not property-like entities; they are objects in their own right. The theory has one further commitment, and this is the ontological dependence relation that explains the existential dependence relation between abstract artifacts and various concrete entities, events, and properties. Although ontological dependence is crucial for the kind of explanation the theory provides, one can employ, if one is suspicious of the explanatory power of modal existential dependence, a different non-causal metaphysical relation of dependence such as grounding.

VI. CONCLUSION

Platonism is one of the most influential and compelling theories about the nature of repeatable social entities such as words, works of music, and fiction. This article is partly a response to Dodd's claim that Platonism is an inevitable consequence of the type-token theory. I argue that Dodd has little to offer to justify this bald claim. I offer a novel ontology of types that retains the basic components of the type-token theory such as repeatability and the relation between types and their tokens. The theory not only dismantles Dodd's challenges to creationism but also provides a number of advantages that neither Platonism nor its less attractive alternatives such as Rohrbaugh's view can offer. On this view, types, unlike properties, are dependent objects that should be understood in analogy with other objects. Once we take types, and artifactual types in particular, as objects in their own right, we can see how most of our theories about artifacts in general and our views on their identity and change can apply to abstract artifacts.¹⁹

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NOTES

- 1 Some of these alternatives to type realism in contemporary musical ontology include musical perdurantism (Caplan and Matheson 2006); musical stage theory (Moruzzi 2018); the property theory of musical works (Letts 2018); musical aristotelianism (Fisher 2023); musical fictionalism (Kania 2012; Killin 2018); musical eliminativism (Cameron 2008); and musical idealism (ACray and Matheson 2017).
- 2 See, for instance, Levinson (1980); Thomasson (1999); Howell (2002); Trivedi (2002).
- 3 Although Wolterstorff and Dodd accept (b), their reasons for doing so are quite different. Compare Wolterstorff (1980, 88) and Dodd (2007, 61).
- 4 Howell's response is more complicated than what is presented here. More on this below.
- 5 See for instance, Anderson (1985, 46), CanCaplan and Matheson (2004, 126), Kania (2008, 23), Letts (2018, 59), and Puy (2020, 187).
- 6 I am leaving aside the question of whether the reverse is also true, that is, whether for every property *being a k*, there is a type-associate *K*. See Wolterstorff (1980, 47), Dodd (2009, 60) and Howell (2002, 110) on this question.
- 7 In fact, a property-associate of norm type *K*, according to Wolterstorff and Dodd, is *being a well-formed K* (Dodd, 2007, 60). I leave this complication aside for now, as it is not essential to our discussion here.
- 8 Puy (2020, 193) makes a similar point about Howell's view.
- 9 Howell (2002, 15) agrees with this observation.
- 10 I take this to be the main idea behind Letts's property view of musical works. Although Letts's official position is to identify types with properties, it is clear that types—as type realists see them—do not have a place in our ontology.
- 11 See Wetzel (2009) and Dodd (2007).
- 12 I thank an anonymous referee for pressing me on this point.
- 13 Notice that according to Dodd's view, the property-associate of a norm-type determines the conditions under which well-formed instances of the type ψ are tokened. However, norm-types also have tokens that are not properly formed. These objects or events are still considered tokens of ψ because they instantiate a sufficient number of the set Σ of properties normative within the type: Musical works are thus norm-types whose tokens are sound-sequence-events. For such a sound-sequence-event to be a properly formed token of a certain work, it must sound a certain way: it must have all of the properties normative within the type. And for it to count as a token of the work at all, it should have a sufficient number of those normative properties. (Dodd 2007, 34–35). Therefore, it follows that there can exist tokens of a norm-type ψ that do not instantiate its property-associate: that is *being a properly formed instance of ψ* .
- 14 See, however, Wetzel (2009); Dodd (2007), and Katz (2000).
- 15 See Wetzel (2009, 58–71) for an extensive discussion.
- 16 Platonists about words, of course, disagree. Katz for instance argues that it is not the linguistic types themselves that change but only our epistemic relations to them (2000, 136–138).
- 17 Notice that Thomasson has changed some of her views in her *Fiction and Metaphysics* (1999) since its publication. Most notably, her views on the nature of artifactual kinds now rely on her general views in metaontology.
- 18 For details, see (Irmak 2021).
- 19 I thank anonymous referees for their useful comments. For their helpful feedback on earlier drafts, I am grateful to Kenneth R. Westphal and Ned Markosian.