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Kind terms and semantic uniformity

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Abstract: Since Saul Kripke’s and Hilary Putnam’s groundbreaking work in the Seventies, the idea has emerged that natural kind terms are semantically special among common nouns. Stephen P. Schwartz, for example, has argued that an artifactual kind term like “pencil” functions very differently from a natural kind term like “tiger.” This, however, blatantly violates a principle that I call *Semantic Uniformity*. In this paper, I defend the principle. In particular, I outline a picture of how natural kind terms function based on Kripke’s and Putnam’s considerations, and I use it to rebut Schwartz’s arguments, showing that if it works for natural kind terms, it can work for artifactual kind terms too (and, arguably, for common nouns in general), or at least that Schwartz did not provide good enough reasons to the contrary.

Keywords: kind terms; natural kind terms; artifactual kind terms; common nouns; semantic uniformity; Hilary Putnam.

Rather incidentally, in a footnote to his “Afterthoughts,” David Kaplan wrote:

I would treat “is a bachelor” in the same way as “is a horse”. While acknowledging the *metaphysical* differences between a species and *bachelorhood*, the syntactical unity of “horse” and “bachelor” suggests an analogous *semantical* treatment. (1989: 581, n. 30)

Now, many people seem to think that “horse” and “bachelor” work quite differently. “Bachelor” has often been taken to be a paradigmatic example of a word whose meaning is given by a *definition*, known by competent speakers, which determines which individuals the word applies to – its *extension*. “Horse,” on the contrary, is a natural kind term, and for such terms well-known arguments by Saul Kripke and Hilary Putnam show that similar definitions do not exist and that their extension is determined in a substantially different way. Thus, what Kaplan tentatively put forward in the passage above is a contentious thesis or principle about *common nouns*, which I shall call *Semantic Uniformity*.[[1]](#footnote-1)

In what follows, I shall defend Semantic Uniformity. Although I believe that most of my considerations can easily be generalized to words such as “bachelor,” for reasons that will soon become clear my main focus will be *artifactual kind terms*: words such as “chair,” “pencil,” “die,” “carburettor,” “bagpipes,” and “stethoscope.” Actually, Kaplan did not mention any of them, but his principle was obviously meant to cover them as well, since they are syntactically on a par with “bachelor” and “horse.” Thus, I shall argue that natural kind terms and artifactual kind terms are semantically on a par, and that any appearances to the contrary are due to the undeniable “*metaphysical* differences,” to use Kaplan’s apt phrase, between natural and artifactual *kinds*.[[2]](#footnote-2)

Of course, one way to defend Semantic Uniformity would be to revive the so-called *traditional theory* of general terms, according to which *all* meaningful common nouns have their extension determined by their *intension* or *connotation* – a set of features that are definitionally associated with them – known by competent speakers.[[3]](#footnote-3) However, as I have already mentioned, this theory has been shown by Kripke and Putnam to be false at least for natural kind terms.[[4]](#footnote-4) Hence, I take it that the proper way to defend Semantic Uniformity consists in arguing that the positive account emerging from Kripke’s and Putnam’s considerations about natural kind terms may (and should) be extended to cover artifactual kind terms too (as well as “bachelor,” though I shall not focus on it here).

On the face of it, Semantic Uniformity seems to be quite reasonable. There is a clear sense, I think, according to which semantics is what syntax is for. Roughly speaking, from the syntactic form of a sentence one should be able to infer the type of truth-conditions the sentence possesses. And, obviously, words contribute no more than their own specific syntactic category to the syntactic form of the sentences in which they occur. Moreover, consider another syntactic category, that of proper names, and the claim that some of them (say, names of people) work in one way and others (say, names of lakes) work in quite a different way. Wouldn’t this strike everyone as bizarre? Notice that I am not saying that Semantic Uniformity is indisputable. Indeed, even the analogous claim about proper names has been denied, most notably by Bertrand Russell.[[5]](#footnote-5) But to dispute it one must provide very good reasons, be they epistemological, as in Russell’s case, or of some other sort. All in all, then, I think that it is fair to say that the burden of proof is on those who claim that natural kind terms and artifactual kind terms should not be treated in the same way, as far as semantics is concerned.[[6]](#footnote-6) Did they offer strong enough reasons? I do not think so, as I shall try to argue below.

It should be admitted, however, that neither Kripke nor Putnam endorsed Semantic Uniformity. Kripke, in fact, summed up his views as follows:

[M]y argument implicitly concludes that *certain* general terms, those for natural kinds, have a greater kinship with proper names than is generally realized. This conclusion holds for certain for various species names, whether they are count nouns, such as ‘cat’, ‘tiger’, ‘chunk of gold’, or mass terms such as ‘gold’, ‘water’, ‘iron pyrites’. It also applies to *certain* terms for natural phenomena, such as ‘heat’, ‘light’, ‘sound’, ‘lightning’, and, presumably, suitably elaborated, to corresponding adjectives – ‘hot’, ‘loud’, ‘red’. (1972: 134, italics mine)

No mention is made by Kripke of artifactual kind terms, and his repeated use of the word “certain” in this passage makes it clear that he did not want to commit himself to a general thesis concerning common nouns. Putnam was certainly more generous:

So far we have only used natural-kind words as examples; but the points we have made apply to many other kinds of words as well. They apply to the great majority of all nouns, and to other parts of speech as well. (1975: 242)

Indeed, Putnam went on to consider “names for artifacts – words like ‘pencil’, ‘chair’, ‘bottle’, etc.,” to conclude that they behave just like natural kind terms. However, “the great majority of all nouns” does not mean *all nouns*, so not even Putnam may be taken to endorse Semantic Uniformity.[[7]](#footnote-7)

Be that as it may, in the following years many thought that Putnam had gone too far: while he was right concerning natural kind terms, his account did not work for other common nouns. Thus, as Åsa Wikforss put it later, “the idea emerged that natural kind terms are semantically special” (2010: 65). Among others, Stephen P. Schwartz, a former student of another father of the so-called *new theory of reference*, Keith Donnellan, concluded the introduction to his timely 1977 collection, *Naming, necessity, and natural kinds*, by voicing the opinion that “traditional thinking about meaning and the new theory of reference need not exclude each other,” as “[t]he new theory is correct about natural kind terms and the traditional theory is correct about nominal kind terms” (1977: 41). In a series of papers published in the following years (1978, 1980a, 1983), Schwartz tried to substantiate the latter claim by focusing on a certain class of purported nominal kind terms, artifactual kind terms. The challenge to Semantic Uniformity was mounted.

In what follows, I shall focus mainly on Schwartz’s work, which is the most fully developed in this direction. However, it is important to keep in mind that Schwartz was by no means alone in his battle. On the contrary, I believe that his concerns were, and are, quite widespread in the philosophical community, and implicit denials of Semantic Uniformity have often surfaced in the literature. Thus, for example, some years later Barbara Abbott published an article on natural kind terms and other common nouns defending “a conservative position on nondescriptionality,” according to which “relatively few natural language words have this property” (1989: 269), where “[t]he battle line falls naturally between species names like *tiger* and *gold*, and artifact terms like *pencil*, *chair*, and *coffeepot*” (271). And in their well-known textbook, Michael Devitt and Kim Sterelny wrote:

Putnam, who did so much to launch the causal theory of natural kind terms, saw the theory as having much wider application; it stretched even to kind terms like ‘pencil’ and ‘pediatrician’ (1975: 242-5). We are as enthusiastic for conquest as any causal theorist could be, but the wise imperialist knows his limitations. We think that Putnam goes way too far. (1999: 93)[[8]](#footnote-8)

Now, in his papers Schwartz argues for two main claims, which he takes to be strictly related. The first is metaphysical. There is, according to Schwartz, a striking difference between natural kinds and artifactual kinds. Here are some quotations from the 1978 article:

I believe ... that there is no such underlying nature of pencils, nor is there a presumption of such a nature. What makes something a pencil are superficial characteristics such as a certain form and function. There is nothing underlying about these features. (571)

[T]here seems to be no candidate for the nature of artifact kinds, so artifact kinds like pencils, chairs, lamps are just like water would be if we discovered that there was no chemical nature common to all bodies of water. The superficial characteristics take over and serve to provide necessary and sufficient conditions for being a member of the kind. The big difference between artifact kinds and water is that we do not presuppose that there is any underlying nature that makes something to be the kind of artifact that it is. (572)

When I say that there is no common nature that all pencils have I mean that there is nothing apart from some set of superficial characteristics that all pencils have in common. (*ibid*.)

The second claim Schwartz argues for directly concerns language. In fact, according to Schwartz, the extension of a word like “pencil” “is not determined by a similarity relation pegged to a paradigm” (1980a: 183) and hence, contrary to what Putnam claimed (1975: 243), the word is not *indexical* (in Putnam’s sense).

As I said, Schwartz takes the two claims to be strictly related: “If something is a pencil because it has all or enough of some set of superficial characteristics then ‘pencil’ is not indexical” (1978: 572). By the way, let me mention here that I do not think the two claims are so related: as I shall argue below, a word may have its extension determined by a similarity relation pegged to a paradigm and pick out what Schwartz calls a *nominal kind* (e.g., an artifactual kind), and a word may not have its extension determined by a similarity relation pegged to a paradigm and pick out a natural kind. At any rate, I shall not question Schwartz’s two claims here (although I am perplexed about both), nor his ingenious arguments in favor of the second. Rather, in what follows I shall suggest that, *even if* they were true, Semantic Uniformity would not be in danger: an “analogous *semantical* treatment,” to use Kaplan’s words, of artifactual kind terms and natural kind terms would still be possible. In fact, Schwartz’s two claims are no obstacle to the positive account emerging from Kripke’s and Putnam’s considerations about natural kind terms being extended to artifactual kind terms, or so I shall argue. To see this, however, we need to be clear about what the core of this positive account actually is.

As is well-known, in “The meaning of ‘meaning’” Putnam argues against the traditional theory of general terms by arguing that one important consequence of it is false for natural kind terms. The consequence is the following: the psychological state of a speaker who is competent with regard to a certain general term *A* determines the extension of *A* in her idiolect. Putnam argues against it by showing that “it is possible for two speakers to be in exactly the *same* psychological state (in the narrow sense), even though the extension of the term *A* in the idiolect of the one is different from the extension of the term *A* in the idiolect of the other” (1975: 222). How does he show this? He offers two main arguments. The first is the Twin Earth thought experiment: in 1750 Oscar1 and Oscar2 were in exactly the same psychological state (in the narrow sense), but the extension of “water” was H2O when used by the former on Earth and XYZ when used by the latter on Twin Earth. I take this as a rather sophisticated version of what has been called an *argument from error*. The second argument does not even require science-fiction. Putnam admits that he cannot tell an elm from a beech: “My *concept* of an elm tree is exactly the same as my concept of a beech tree” (226). This suggests that the obvious difference between the extension of “elm” and the extension of “beech” in his idiolect is not explained by a difference in his psychological state (in the narrow sense). I take this as a version of what has been called an *argument from ignorance*. These two arguments allow Putnam to conclude that “the psychological state of the speaker does *not* determine the extension … of the word” (*ibid*.), at least when the word is a natural kind term, hence that the traditional theory is false: “Cut the pie any way you like, ‘meanings’ just ain’t in the *head*!” (227).

Now, an argument from error and an argument from ignorance have famously been used by both Kripke and Donnellan to rebut what Kripke called “the description theory of proper names,” which, *mutatis mutandis*, claims about proper names what the traditional theory of general terms claims about natural kind terms.[[9]](#footnote-9) This may already suggest an analogy between proper names and natural kind terms. However, we shall see in a moment that the similarities between them are much deeper.

Once the traditional theory of general terms has been rejected, one needs to offer a positive account of what determines the extension of natural kind terms, an account that does not appeal to the recognitional and\or inferential capacities of normal, competent, speakers. We can find some hints about how to proceed from the following passage in Putnam’s article: “Traditional semantic theory leaves out only two contributions to the determination of extension – the contribution of society and the contribution of the real world!” (1975: 245). Contrary to what Putnam claims, however, I do not think that society contributes in any way to the determination of extension – what the individual cannot do, society cannot do either (consider the society on Earth and Twin Earth in 1750).[[10]](#footnote-10) The key to the positive account we are searching for is, on the contrary, the appeal to the *real world*. It is the world, rather than Putnam’s mind, that makes it the case that all and only beeches (and no elms!) are in the extension of the word “beech” in his, as well as in my, idiolect. But what does this mean? I think it means just this: there is a *kind*, out there, to which our word “beech” is somehow hooked up; and beeches (and only beeches) are in the extension of the word *just because* they (and only they) are members of this kind.[[11]](#footnote-11) It is a short step from here to the claim that natural kind terms are *names* for kinds in the same sense as proper names are names for individuals.[[12]](#footnote-12) The similarities already noted thus extend to the positive side as well. Just as a proper name is given to an individual (“Someone, let’s say, a baby, is born; his parents call him by a certain name” (Kripke 1972: 91)) and then “[t]rough various sorts of talk the name is spread from link to link as if by a chain” and may reach people who do not know anything about the individual, so a natural kind term is given to a kind and then through various sorts of talk is spread from link to link as if by a chain and may reach people who do not know anything about the kind. In both cases, this is what makes the arguments from ignorance and those from error so easy to come by.

It has sometimes been objected to me, including by an anonymous referee for this journal, that natural kind terms cannot be names of anything, since natural kind terms allow for quantification and are standardly used as predicates, whereas proper names cannot standardly be used in this way. Note, however, that the claim that natural kind terms are *names* for kinds is not one concerning the semantics of certain quantificational (e.g., “all beeches”) or predicative (e.g., “is a beech”) phrases. In particular, of course it is *not* the claim that such phrases are *referring* phrases. Rather, it is a claim concerning the semantics of the *nouns* occurring in such phrases: these nouns are names of, hence they refer to, kinds. One way (but there might be others) to implement this idea to account for the semantics of “all beeches” and “is a beech” is to read these phrases as, respectively, “all the members of the *beech* kind” and “is a member of the *beech* kind.” Once such a perspective is adopted, a quite simple explanation can be offered of the fact that natural kind terms are standardly used in quantificational and predicative phrases whereas names for individuals are not so used: natural kinds *do* standardly have members whereas individuals *don’t*.

Now, let us ask: Can the account just outlined work for artifactual kind terms as well? The fact that, as Hilary Kornblith has convincingly argued (1980: 113-114; 2007: 143-144; see also Burge 1979), arguments from ignorance and arguments from error may easily be constructed about them as well, should, I think, incline us toward a positive answer. And, as I argued at the beginning, the *prima facie* plausibility of Semantic Uniformity should do the same. Here, however, we have to go back to Schwartz’s two claims, which are supposed to constitute reasons to the contrary.

What about Schwartz’s first claim? Let me remind you that it had to do with alleged striking differences between natural and artifactual kinds. Pencils do not have an “underlying nature”: “there is nothing apart from some set of superficial characteristics that all pencils have in common”; “[w]hat makes something a pencil are superficial characteristics such as a certain form and function.” For the sake of argument, let us grant this to Schwartz. Does it follow that the above account does not work for artifactual kind terms? I do not think so. Notice that in outlining it I made no mention whatsoever of underlying natures. From this metaphysical point of view, all that is needed for that account to work is that there is a kind to be named ‘out there.’[[13]](#footnote-13) By a kind, here, I mean just a *grouping* of individuals, which, for whatever reason, someone found interesting enough to name.[[14]](#footnote-14) It is perhaps not even necessary for the kind to exist already at the time of the naming act. In any case, it can be as superficial as we want (not even mind-independence seems to be required). Interestingly, in one of the first discussions of Schwartz’s arguments James Nelson made exactly this point: “These ‘superficial properties’ may well serve as the ‘nature’ of those things which lack a unified ‘hidden structure’, as do artifacts” (1982: 364).

Of course, not all kinds are on a par. Scientists are especially interested in natural kinds, because they are in the business of understanding nature, and natural kinds carve nature at its joints and in this sense are explanatorily important, as they support much more robust inductive generalizations than non-natural kinds.[[15]](#footnote-15) But this is a significant metaphysical difference that, if I am right, does not prove anything about the semantics of natural and non-natural kind terms.[[16]](#footnote-16)

What about Schwartz’s second claim, according to which the extension of a word like “pencil” is not determined by a relation of similarity pegged to a paradigm and hence the word is not indexical in Putnam’s sense? To see whether the claim raises doubts about Semantic Uniformity, we need to develop our positive account of how natural kind terms work a little further, to answer an important metasemantic question. We said that natural kind terms are names for kinds. But how do they come to name kinds? When it comes to the analogous question about proper names, we know what Kripke’s answer was: “An initial ‘baptism’ takes place. Here the object may be named by ostension, or the reference of the name may be fixed by a description” (1972: 96). It seems to me that something similar may be said to answer the question about natural kind terms. There are two ways by which they come to be hooked up to the kind they name. The first one corresponds somehow to Kripke’s “ostension”: we enter in causal contact with one or more individuals (the *paradigm*) and we appeal to an equivalence relation (*the same kind of liquid*, *the same kind of animals*) to name a kind we may know almost nothing about yet they are all members of. When it is introduced in this way, a natural kind term takes on the indexical character that Putnam so insists upon. But the tie between a natural kind term and a kind may also be fixed, as in the case of proper names, by a *description*, without any causal interaction with members of it. An example might be the introduction of a name for an element in the periodic table not yet found in nature. Here, the indexical character is absent, or at least is much less pregnant.

Now, does Schwartz’s claim that the extension of a word like “pencil” is not determined by a relation of similarity pegged to a paradigm constitute a reason not to extend this account to artifactual kind terms? Again, I do not think so. For the sake of argument, let us grant Schwartz that the extension of a word like “pencil” is not determined by a relation of similarity pegged to a paradigm. As should be clear, this is no obstacle to extending the account above to them, since, as we have just seen, there are natural kind terms whose extension is not determined in that way. Moreover, there may certainly be artifactual kind terms whose extension is determined by a relation of similarity pegged to a paradigm, as Kornblith showed a long time ago with an ingenious example:

Consider the Martian anthropologist, ignorant of the nature and function of doorstops, who points to my doorstop and says, “Let’s call the kind of which this is a member ‘glug’.” It seems that in spite of the Martian’s ignorance of the function of doorstops, he has succeeded in using the term ‘glug’ to refer to doorstops. (1980: 114)

Here, an artifactual kind term has been introduced just as according to Putnam most natural kind terms are, hence it exhibits the same type of indexicality. Many ordinary artifactual kind terms might be like “glug.” Even if it turned out that natural kind terms are more often introduced in the indexical way while artifactual kind ones are more often introduced via a fixing description, this would not prove much: the difference could be explained by the metaphysical differences between the respective kinds (artifacts are things we design, and we may be able to describe them even before they come into existence).

Let me conclude. I have presented a very rough outline of an account of how natural kind terms work. Of course, many details would need to be filled in, and many tough problems would need to be solved.[[17]](#footnote-17) I have not provided any new argument in favor of this account. However, the outline is inspired by Kripke’s and Putnam’s considerations about natural kind terms, which many philosophers find quite convincing. My limited goal in this paper was merely to argue that if something like this works for natural kind terms, it can work for artifactual kind terms too, or at least that Schwartz did not provide good enough reasons to the contrary. If this is so, it is perhaps wise to stick to Semantic Uniformity, given its independent plausibility.[[18]](#footnote-18)

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1. The principle is, in fact, a consequence of a much more general one, which certainly drove Kaplan and which may also be called *Semantic Uniformity.* Briefly: same syntactic category, same semantical treatment. In what follows, however, my only concern will be the syntactic (lexical) category of common nouns. [↑](#footnote-ref-1)
2. A terminological remark. Throughout the paper, my use of “semantics” and its cognates will be intended to be broad, to cover not only semantically proper but also *metasemantic* issues. Thus, for example, when I say that natural kind terms and artifactual kind terms are *semantically* on a par, I mean not only that they have the same type of semantic value, but also that they come to have their semantic value by the same types of processes or mechanisms. On the taxonomical distinction between semantics and metasemantics, see Kaplan (1989: 573-576). [↑](#footnote-ref-2)
3. For an attempt more or less in this direction (though wisely appealing to *clusters* rather than definitions) see for example Wikforss (2010). [↑](#footnote-ref-3)
4. See Putnam (1970 and 1975), Kripke (1972, especially Lecture III), and Schwartz (1979). Schwartz (2006) offers a quick but instructive reconstruction of the debate. [↑](#footnote-ref-4)
5. Actually, Russell went even further, as he claimed that even different tokens of the same name work differently:

Suppose some statement is made about Bismarck. Assuming that there is such a thing as direct acquaintance with oneself, Bismarck himself might have used his name directly to designate the particular person with whom he was acquainted. In this case, if he made a judgment about himself, he himself might be a constituent of the judgment. Here the proper name has the direct use which it always wishes to have, as simply standing for a certain object, and not for a description of the object. But if a person who knew Bismarck made a judgment about him, the case is different. (Russell 1911: 170) [↑](#footnote-ref-5)
6. Interestingly, even Stephen P. Schwartz, who, as we shall see below, is one of the main critics of Semantic Uniformity, in at least one place (2006: 281-282) seems to suggest that a “unified” theory would be desirable. [↑](#footnote-ref-6)
7. Consider also the following passage:

It seems that there is a strong tendency for words which are introduced as ‘one-criterion’ words to develop a ‘natural-kind’ sense, with all the concomitant rigidity and indexicality. In the case of artifact-names, this natural-kind sense seems to be the predominant one. (Putnam 1975: 244)

Though predominant, the natural-kind sense is thus not the only sense, according to Putnam. [↑](#footnote-ref-7)
8. Instead, Semantic Uniformity is apparently endorsed in Almog (1984: 54-58) and Martí & Martínez-Fernández (2010: 55-56), but without any discussion of Schwartz’s and others’ arguments. On the contrary, Marconi (2013) argues that not even the subclass of common nouns constituted by artifactual kind terms is semantically uniform. [↑](#footnote-ref-8)
9. See Donnellan (1970: 342-343) and Kripke (1972: 81) for the argument from ignorance; Donnellan (1970: 347-349) and Kripke (1972: 83-85) for the argument from error. In “A puzzle about belief,” Kripke writes that the argument from ignorance is “the clearest objection” (1979: 246) to the description theory. [↑](#footnote-ref-9)
10. This does not mean, of course, that what Putnam writes about what he calls the *division of linguistic labor* (1975: 227-229) is not of great importance for understanding various linguistic phenomena. But in the quoted passage he seems to conflate the *constitutive* sense and the *epistemic* sense of “determination.” Whereas the real world plays a constitutive role in that it contributes to make the case that natural kind terms have the extension they have (see below), the society plays only an epistemic role, since speakers can appeal to other society’s members (the experts) to ascertain the extensions those terms already have. On the distinction between these two senses of “determination,” see Bach (2005: 43) and Neale (2016: 266-273). [↑](#footnote-ref-10)
11. In speaking of the *extension* of “beech” I only mean here the set of individuals which the word *applies to* (*is* *true of*). I am not committing myself to its being *a*, even less *the*, semantic value of the word. [↑](#footnote-ref-11)
12. As a consequence, natural kind terms *rigidly* designate natural kinds. The issue of natural kind terms *rigidity* has attracted a lot of attention – way too much, in my opinion – in recent years. Schwartz himself has criticized an approach to it similar to the one I have just mentioned (defended, for example, in Martí & Martínez-Fernández 2010), which he calls “rigid expressionism,” in various places (see Schwartz 1980b, 2020, and 2021). However, his main criticism is that rigid expressionism “fails to provide any way of distinguishing natural kind terms from non-natural kind terms” (1980b: 190): “The problem with rigid expressionism … is that it runs together natural kind terms with non-natural kind terms in a *false semantic uniformity*” (2021: 2959, italics mine). But, as Devitt (2020: 416) stresses, “it is *not* the task of such a notion [rigidity] to distinguish natural from non-natural kind terms.” What’s more, as I am arguing in this paper, Schwartz has never been able to show that the resulting semantic uniformity is “false.” [↑](#footnote-ref-12)
13. In fact, in my opinion the most sensible way to resist my defense of Semantic Uniformity is to claim that there are no artifactual or other non-natural kinds at all. Schwartz, however, considers this a “highly controversial metaphysical thesis” to which he does not want to commit himself: “Lawyer, bachelor, and pencil are not natural kinds, of course, but this is not to say that they are not kinds at all” (1980b: 192). [↑](#footnote-ref-13)
14. Sometimes, philosophers use the word “universal” in this context (see for example Martí & Martínez-Fernández 2010). I prefer to steer away from this terminology, to avoid misunderstandings due to the long-standing debate over the nature of universals. I take kinds to be real world entities. [↑](#footnote-ref-14)
15. However, scientists are often also deeply involved in technology and require technology to be properly run. Hence, they must care about non-natural (artifactual!) kinds as well. (I thank an anonymous referee for this point.) [↑](#footnote-ref-15)
16. Since I was interested in showing that, even if Schwartz’s first claim were true, Semantic Uniformity would not be in danger, I did not question it. However, let me add here that the idea that pencils do not have a common nature, namely that pencils form only a “nominal” kind, seems to me highly dubious. This is obviously not the place to undertake a detailed investigation of the metaphysics of artifacts (which, by the way, may well be substantially different for different kinds of artifacts: compare LSD and sofas), but I want to quote the following considerations by Tyler Burge, which I find extremely convincing:

there are perceptible, artifactual, and social kinds …. I do not agree that such … kinds are “ideal” or merely practical. I do not agree that they are in any sense constructed by us. Of course, most *artifacts* are dependent on our intentionally making them, causing them to come into existence more or less according to some plan. Once made, the artifacts are what they are, regardless of how we regard them. An amplifier is not a kind of thing only by courtesy of our “projecting” a principle of unity whose reality lies entirely in our projection.

We fix on and represent kinds, features, and relations in the world. Often our representations reflect interests and needs special to us. One should not, however, conclude that since we represent a pattern only because it corresponds to some need or interest of ours that [*sic*] the pattern is a product or projection from our needs or representational abilities. The world is made up of individuals that instantiate a rich, hierarchical, cross-quilt of patterns made up of properties, relations, kinds. Science deals with those that submit to relatively deep explanatory systematization. But pattern is not less real by being local, or by being perceptible only by certain sensory modalities, or by being constitutively dependent on causal processes that do not fall under the systematic principles of some science. The realities that we represent are largely independent of our “projecting” principles of unity. The unities and similarities that we make use of are for the most part quite independent of us, even where they are of special interest to us, and might be of no interest to some other species. (2003: 318-319).

For some other interesting considerations on “culturally generated kinds,” see Elder (1989), which also contains a discussion of Schwartz’s arguments. Some of its conclusions converge with those I am proposing here. [↑](#footnote-ref-16)
17. Perhaps the biggest among these is the so-called *Qua-problem* (Devitt & Sterelny 1999: 90-93). [↑](#footnote-ref-17)
18. I presented an ancestor of this paper at the *Logos Workshop on Artifacts: Semantics and Metaphysics* (Barcelona, May 2013) and at the *XXIII Congresso Nazionale della Società Italiana di Filosofia del Linguaggio* (Bologna, January 2017). I am grateful to Genoveva Martí and Paolo Leonardi for inviting me, respectively, to the first and to the second event, and to all those who gave me feedback on those occasions. Special thanks are due to Joseph Almog for the many discussions on these issues, and to Michael Devitt, Alfonso Frijio, Paolo Leonardi again, Diego Marconi, Ernesto Napoli, Paul Nichols, Marco Santambrogio, and Stephen Schwartz for their comments on previous drafts. [↑](#footnote-ref-18)