




Using a two-dimensional model from social ontology to explain the puzzling metaphysical features of words

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Received: 19 August 2021 / Accepted: 2 April 2022

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Abstract

I argue that a two-dimensional model of social objects is uniquely positioned to deliver explanations for some of the puzzling metaphysical features of words. I consider how a type-token model offers explanations for the metaphysical features of words, but I give reasons to find the model wanting. In its place, I employ an alternative model from social ontology to explain the puzzling data and questions that are generated from the metaphysical features of words. In the end I chart a new path that foregrounds the agent-dependence and social conditions for word kinds.

Keywords Social ontology · Metaphysics of words · Types and tokens · Grounding · Anchoring

In March of 2017, the Lego company posted a tweet with the following statement in response to a poll about the plural of ‘Lego’: “LEGO is always an adjective. So LEGO bricks, LEGO elements, LEGO sets, etc. Never, ever ‘legos’”. More recently on the show *Lego Masters*, host Will Arnett mentioned that ‘legos’ is not a word, followed by applause from the contestants. In the LEGO community, it is a source of frustration for some when someone says ‘legos’. If we take the claim at face value that ‘legos’ is not a word, then what is ‘legos’, if not a word? More generally, what are words, and what makes something a word?

Such questions are about the metaphysics of words. Words are ordinarily thought of as *social* objects in that they are objects that are produced and used by social groups, and one of the aims of social ontology is to analyze and explain the features of such objects. Other common examples of social objects besides words include things like money (e.g. dollar bills), groups (e.g. the Supreme Court), and institutions (e.g. Texas A&M University). These objects are not classified primarily (or perhaps at all) by their physical or intrinsic features, but primarily by the way they are used or valued by a

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social group. Features of a dollar bill include the way it is used or valued, in contrast to features of a tree that are more intrinsic, like its physical parts and organic functions. As we will see, words exhibit social features that are more puzzling than the natural features we find in ordinary objects like trees.

Explaining the metaphysical features of words is a difficult task, partially because the objects we call words vary wildly in their metaphysical profile: some sound waves are words, some ink markings are words, neon lights can be words, and so forth. The degree of metaphysical variation that is allowed for words makes it difficult to give a metaphysical account for (1) what distinguishes words from non-words, and (2) what distinguishes a particular word like ‘tree’ from other words. The variation between all those different kinds of objects is greater than the variation we allow for other kinds of objects. For example, there are many different kinds of objects that are tables, but the difference between those objects is not as great as the difference between a sound wave and an ink marking. To explain the unique, metaphysical complexity of words, I defend the following thesis: a two-dimensional model of social ontology (to be discussed more fully in Sect. 4) is well-equipped to offer explanations for the metaphysical features of words because of the way the model offers an explanation for two dimensions of a word’s metaphysical features, namely (1) kind membership for words, and (2) the significant *agent-dependent conditions for membership* for words. The first dimension of the model includes the *grounding* relation, where facts about some object we call a word ground facts about kind membership for that word, and the second dimension of the model includes the *anchoring* relation, where facts about kind membership for that word are anchored by facts about social agents and the conditions they give for a word’s kind membership. This allows us to distinguish grounding relations between facts about a particular word ‘tree’, for example, and facts about its kind membership conditions, and further allows us to distinguish anchoring relations between facts about social agents who give membership conditions for something to be a particular word like ‘tree’, and facts about those membership conditions.¹ I make this case as follows: first, I clarify the kind of data that generate puzzles about the metaphysics of words. Any answer to questions like the ones above—‘What is a word?’ and ‘What makes something a word?’—must take into account the data below and the puzzles they generate. Next, I look at a type-token model that seeks to explain the data, and I conclude that the model is less than satisfying. In its place I present an alternative two-dimensional model of metaphysical explanation from social ontology that is well-equipped to deliver metaphysical explanations for social objects like words. Finally, I show why this model can explain the metaphysical features of words better than the type-token model.

¹ There is some debate over whether there is enough difference between the grounding relation and the anchoring relation to warrant a distinction between the two relations. Schaffer (2019), Hawley (2017), and Mikkola (2017) argue against the distinction, while Epstein (2019) prefers to keep it. It is not essential to my argument whether I side with one or the other. What is important for the argument is distinguishing two different *sets of relata* as the two dimensions: (1) facts about an object and facts about an object’s kind membership, and (2) facts about social agents who set up kind membership conditions and facts about those kind membership conditions. Whether that amounts to two different kinds of relations can remain an open question.

1 The data

Suppose I am giving directions to someone and instead of saying “Make a right at the next light” as I intend, I am suddenly overtaken by a coughing fit as I start to say the last word. The word ‘light’ is replaced by some unrecognizable, breathy noise; is that noise a word? Kaplan (1990) discusses situations where someone intends to produce some particular word, but whatever object is produced is significantly different from the standard inscription or utterance of the intended word. The object that is produced could be another word, as in a Freudian slip, or it could be something unrecognizable like a coughing sound. This question is not merely some abstract thought experiment, but is ethically charged for those with a disability. A hearing or speech disability can cause significant deviation from the standard form of an utterance at the input (hearing) stage or output (speech) stage. Degrees of blindness can cause analogous issues for inscriptions. Situations like these prompt Kaplan to reject resemblance conditions for membership of word kinds. Instead, the intent of the person producing the word determines which kind of word is produced.²

On this theory, intent plays a greater role in explaining the metaphysical features of words than does the resemblance of objects of a certain word kind.

Cappelen (1999) offers a response to Kaplan. He supposes that we are asked to produce a token of ‘l’, but instead we produce an unrecognizable, squiggly shape. If there is no resemblance condition for kind membership, and my intent is to produce ‘l’, if intentions determine what word kind an object is a member of then the squiggly shape counts as ‘l’. But that seems wrong. Regardless of my intention, a squiggly shape should not count as ‘l’. But surely intentions play *some* role in explanation, otherwise we end up in situations like the ones above that have undesirable implications for those with disabilities.

Other cases remove intentions altogether from word production. We are further asked by Cappelen to suppose we find a piece of paper on the street with the following writing:

Can you spare a quarter?

Though we don’t know its source, we can use the words to ask others for a quarter. But now suppose that against all odds the writing was produced from accidental spilled ink, so that no intention was involved in its production. Can we still count the ink marks as words? Would it matter if a person was the cause of the ink spill, but did so by accident, i.e. without intent? Still other cases remove agents altogether from word production. Consider an example from Epstein (2009): suppose a wave was responsible for making a mark of ‘Aristotle’ on the beach. Is that mark a word, and what would explain an answer either way? Juvshik (2020) continues the oceanic example by supposing that driftwood in the shape of ‘C A T’ washes up on the shore. But he further considers whether the driftwood is a misspelling of ‘act’. Can such a natural object, uncaused by human activity and absent of any intent, be misspelled?

² There is some discussion in Cappelen (1999), Hawthorne and Lepore (2011), and elsewhere over exactly how intentions function within Kaplan’s view. Kaplan addresses this issue in Kaplan (2011), but whatever Kaplan’s actual view, let the above description of Kaplan’s view represent the view where proper intentions (wholly or partially) determine kind membership for a word.

So we have several data and several questions prompted by the examples above:

- An unrecognizable, squiggly shape is produced instead of an intended ‘l’, perhaps because of a disability or simply by accident: do words that are unrecognizable from the intended word still count as the intended word?
- ‘Aristotle’ or ‘C A T’ washed up on the shore: do words that are a result of natural forces outside of any intentional agency count as words? Could such natural objects be an instance of misspelling?

The data get more complex when we consider a word’s relation to its meaning. Gasparri (2020) gives a few examples that illustrate further puzzles:

- *Change*. Words change in meaning. In one type of shift, called “narrowing” (Bloomfield, 1933), the meaning of the word undergoes a change from a superordinate conceptual level to a subordinate conceptual level. For example, SKYLINE originally designated the horizon as such, but it is now used to refer to the horizon qua populated by a particular kind of urban landscape. Are “old” and “new” SKYLINE the same word?
- *Homonymy and polysemy*. Consider “fluke.” It can designate certain types of flatfish, the end parts of an anchor, either half of the triangular tail of a whale, and a stroke of luck. The fourth meaning is distant from the previous three, so it plausibly deserves a dedicated count, say, FLUKE₄. But what about the other three? Can they be associated to a single polysemous word, or should they be understood as senses of numerically distinct words? (Gasparri 2020)

In some cases, it looks like *the same word* like ‘skyline’ can change meaning, and in other cases it looks like different meanings of ‘fluke’ make the same-looking word *a different word*. In the next section I look at whether the type-token model is equipped to handle data like these, concluding that the model falls short of offering a satisfying explanation for the data above.

2 The type-token model

In her (2009) book on types and tokens, Linda Wetzel presents arguably the best case for the type-token model of words. She catalogs a variety of ways in which word tokens of some type can manifest vast differences between each other while still being united under some word type. In the third chapter, she runs through various candidates for the features that all and only tokens of a *lexicographic* word type may have in common. A lexicographic word is, loosely, what she calls a word that warrants a dictionary entry.³

Lexicographic words can be written, uttered, may have various spellings and pronunciations, and may be misspelled and mispronounced. Given the wide range of objects that may token a lexicographic word, it doesn’t appear as if there is some common characteristic among its tokens that could identify and predict what word type a

³ Thanks to Linda Wetzel via personal correspondence for alerting me to this term. See pp. 58-71 for her helpful discussion. Although it is called a *lexicographic* word, I assume that 1) the term comes from the inscriptive property of the dictionary entries, 2) such a word can be spoken as well, and 3) that it is a pragmatic, contingent matter that they are expressed as inscriptions in dictionaries and lexicons, and that the audiobook versions produce lexicophonic equivalences.

given object is a token of. For example, if a word type like ‘tree’ can be tokened by ink markings, sound waves, hand gestures in sign language, and so forth, it is difficult to see what common characteristic we could point to among that vast variation between tokens. She then concludes the following:

Thus my answer to the question posed earlier, ‘Is there anything all and only tokens of a particular word have in common other than being tokens of that word (i.e., any linguistically nontrivial, ‘natural,’ projectible property)?’ is no. (Wetzel, 70)

According to this account, the only thing all and only tokens of a particular word have in common is *being tokens of that word*.

But an obvious objection immediately follows: on this account, whether some token is a token of a particular type appears to be merely a brute fact. Wetzel’s answer to this objection is that there are other factors like spelling, pronunciation, linguistic context, and so forth, ‘that help determine, for each word token t , what word type T it is a token of and why’. But in the end her point is an epistemological one; perhaps we as agents pick up clues from tokens that help determine which type many objects token. That is a different claim than the metaphysical claim about what grounds the fact that all and only tokens under consideration are tokens of some particular type. If there is no more fundamental explanation for why some token is a token of some particular word type, then the fact that some token is a token of some type is an ungrounded, fundamental fact, and it is difficult to see how such an ungrounded, fundamental fact is not brute. Why is some token a token of type T_2 and not type T_1 ? Not because of any resemblance condition, but because *it just is* a token of that word type, according to the type-token account; there is no further explanation.

So on this account, why is the beach marking a token of ‘Aristotle’? Because it is a token of that word. Or why *isn’t* the beach marking a token of ‘Aristotle’? Because it is either a token of some other word or it is not a token of any word. If there is no common characteristic among tokens beyond the fundamental fact of being a token of some type, we are left without any way of explaining whether a squiggly shape that is quite different from ‘l’ is a token of that type, a token of some other type, or not a token of any type. Wetzel goes on to state the following example from nature for comparison:

But this is not very different from grizzly bears. Not all adult grizzlies are big, not all are brown, not all have humps, and so forth. Almost any generalization about all grizzlies will be false if there is one. (Wetzel, 70)

The idea is that because there is no resemblance condition that will be satisfied by all members of some type, whether a type of a word like ‘Aristotle’ or a type of a bear like a grizzly bear, then what unites objects under some type is the apparently ungrounded fact that they are all tokens of a particular type.

When considering the vastly different ways a word can be tokened, it is difficult to deny Wetzel’s observation that there does not seem to be any resemblance criterion that can unite them. But having no explanation for why some word falls under a particular type or kind, beyond an ungrounded fact of the matter, is less than satisfying. On the other hand, if we cannot look to the objects to find the facts that unite them, where

can we look? I argue that some of the things we look for to explain the metaphysical features of words that are puzzling are facts about the social agents who produce and use these words. So we need a model that takes into account the difference in relations between facts about the objects themselves and facts about the social agents who produce and use words. Fortunately, Epstein (2015, 2019) has provided such a model. In the next section, I briefly give the basics of the model before showing how it better explains the metaphysical features of words.

3 A two-dimensional model

Recall that objects in the social world include things like dollar bills, institutions, and groups of people. *Ontological individualism* is the view that social facts are determined exhaustively by facts about individuals. On this view, facts about a corporation like Starbucks are determined exhaustively by facts about the individuals that make up the corporation. The shortcomings of this view function as a major motivator for Epstein's alternative model. Facts about the U.S. Supreme Court, for example, are not determined exhaustively by facts about the individuals (i.e. the judges) that make up that group. The group has cycled through many different individuals over the centuries, and there are many facts that have nothing to do with the individual members, like facts about the rules that determine when they are officially in session. So something more than the individuals that make up the object is needed to explain the various metaphysical features of the object, and Epstein's model for social ontology is positioned to do just that.

Brouwer (2022) has helpfully called Epstein's model a *two-dimensional* model. As I mentioned in the introduction above, one dimension involves *grounding* of social facts:

The facts that can play the grounding role with respect to social facts are not of any specific type: what they look like depends on the kind of fact that's being grounded. That something is a dollar bill is grounded in how and where it was manufactured (a fact about its history); that someone is popular is grounded in how other people regard them (a fact about attitudes); that Jimmy can't go on the roller-coaster is grounded in his height (a fact about physical properties).

But when we ask for an explanation of why *those* facts are the grounding facts—like asking what explains the fact that the dollar bill was manufactured by the Bureau of Printing and Engraving grounds the fact that some rectangular piece of cloth is a dollar bill—we are asking about the *anchoring* of social facts:

Now we're asking why the grounding relations run as they do. In Epstein's theory the grounding principles that govern a given case are explained and determined by different facts which he calls *anchors*... Anchors are often social facts themselves, and what they anchor are grounding principles of the general form 'if A, then A grounds B' (where B is some social fact). The facts that show up among the grounds and the anchors are not metaphysically different kinds of facts, and one and the same fact could feature in either role on occasion. But the explanatory roles are different.

The anchoring relation is the second dimension of the two-dimensional model. An example of a grounding explanatory role is something like the following: the fact that an object is a dollar bill is grounded by facts about the features of the dollar bill and its causal history. An example of an anchoring explanatory role is something like the following: the fact that an object's causal history is a condition for something to be a dollar bill is anchored by facts about social agents who have set up such rules and conditions for dollar bills.⁴ But the facts need not only involve the choices of social agents. Brouwer (2022) notes a few helpful examples of what kinds of facts might stand in the anchoring relation:

- Facts concerning speech acts or inscriptions. The fact that a crime of robbery needs to involve a threat of violence is explained (in part) by the fact that a certain form of words defining the act of robbery appears in the law code.
- Facts about the functional roles of social kinds or institutions. The fact that waving your arm can constitute a greeting but thinking happy thoughts cannot is explained (in part) by the fact that the latter is not outwardly perceptible and hence not apt to play the role of a greeting.
- Facts about paradigm instances of a social kind. That dancing the Macarena involves such-and-such moves is explained by the appearance of those very moves in the 1996 music video.
- Stable patterns in behavior. The fact that deer musk-markings constitute territorial claims is explained by the fact that deer are stably disposed to react to them in a certain way. (Brouwer, 2022)

From this two-dimensional model we immediately see the problem with a one-dimensional model like the type-token model. For the type-token model, some object is said to be a token of some type, but we saw above that there is no fundamental explanation for *why* some object is a token of *that* type. There is no fundamental explanation because a one-dimensional type-token model lacks an anchoring relation that can explain *agent-dependent conditions* for being a token of some type, or an object being a member of some kind.⁵

And the absence of this second dimension matters quite a bit when attempting to explain the metaphysical features of social objects like words. The next section shows how the two-dimensional model is better equipped to explain the data above.

⁴ Some of those facts about social agents will involve the intentions of social agents, but facts about the intentions of social agents will not exhaust the social facts, as I explain in this section. So intentions are of course included in the model through facts about the intentions of social agents, but unlike Kaplan's view (or, let's say, a view similar to Kaplan's) there is more needed to explain the metaphysical features of words than the intentions of social agents, as I outline below. Thanks to an anonymous reviewer for drawing attention to this.

⁵ Types and kinds will be functionally equivalent here. I see no difference between the two that should alter the argument. Further, I remain neutral on other questions related to object theory that have to do with substance theory and bundle theory; the two-dimensional model commits to neither. See Miller (2019) for a way in which a word might be a bundle of properties under a one-category bundle theory.

4 A two-dimensional model of the metaphysical features of words

The one-dimensional type-token model concludes from the lack of resemblance between words of the same type that kind membership for particular words must be brute or fundamental. The two-dimensional model allows for anchors that explain the lack of resemblance conditions for objects to fall under the same kind, due to the way social agents have set up kind membership for particular words. Within particular media kinds like *inscriptions* or *utterances*, resemblance conditions for kind membership may be put in place by social agents. An inscription like ‘tree’, for example, allows for a good deal of variation between objects of that same inscription kind, but there needs to be *some* resemblance between those objects, which explains why an inscription like ‘free’ does not fall under the same inscription kind as ‘tree’.

But for words that allow *inscriptions and utterances* and other sorts of objects to fall under the same word kind, we will not find resemblance conditions across all those various objects. Many have observed that a word kind like TREE can have members from such diverse kinds like sign language, Braille, Morse code, and so forth.⁶ A *sign gesture* that falls under the word kind TREE bears no relevant resemblance to *Braille bumps* that also fall under the word kind TREE. In place of resemblance conditions for word kinds like TREE, there will be some complex, linguistic mapping system that social agents set up so that some inscription like ‘tree’, for example, will fall under the same word kind TREE as the equivalent utterance.

We now have a plausible story to explain the puzzles that were introduced in the first section. The two-dimensional model shows us where to look for explanations of the data we considered: we look both to the objects and to the anchors, relative to some social community. Is the driftwood that washed up on the shore in the shape of ‘Aristotle’ a word? In a sense it depends on *which shore* we are talking about. We are asking a question about a social object, so the answer will be relative to various historically contingent, sometimes unpredictable decisions made by a social community. The driftwood will not be a word for a social community that is only familiar with Mandarin inscriptions, and thus has given no membership conditions for an object like ‘Aristotle’. But the driftwood will be a word for a social community that has given membership conditions for objects shaped like ‘Aristotle’. Asking whether some natural object is a word simpliciter, without respect to some social community, fails to recognize the social components of words. Those social components are taken into account through the explanations involving anchoring in the two-dimensional model.

Likewise for the cases of homophony and polysemy, like with different instances of ‘fluke’ in section one, these cases illustrate what initially appears to be a strange metaphysical feature of words, where qualitatively identical objects fall under different kinds. If we want to explain such a phenomenon, we should be looking to social agents and the historically contingent conditions they give for membership of whatever word

⁶ Cappellen (1999, p. 99), Wetzel (2009, p. 61), and Epstein (2009, p. 57), for example. As one anonymous reviewer pointed out, there may be different *senses* of ‘word’ that each correspond to a particular object type. One sense of ‘word’, for example, could correspond to inscriptions, another to utterances, and so forth. If that’s the case, there are anchoring conditions for ‘word’ that we could explore and are worth developing, but would sidetrack us too much from the more general metaphysical picture here.

kind is in question. For many objects, we typically think of identical-looking objects as falling under the same kind, like two identical-looking tables. But a two-dimensional model can explain how different syntactical and semantic conditions are given by social agents for some object to fall under a kind like $FLUKE_1$ but not $FLUKE_4$, for example. The model also explains how some word kind like SKYLINE can be subject to different agent-dependent conditions over time. As the appearance of the earth's horizon changes for social agents because of the increasing number of skyscrapers, over time agents slowly changed the conditions and semantics for the word kind SKYLINE.

5 Conclusion

Words can be as unruly as the agents who produce them, and as subjects of metaphysical inquiry they can generate data and questions that admit a high degree of metaphysical complexity. I have argued that a two-dimensional model from social ontology can explain much of the data regarding the metaphysical features of words, overcoming some of the shortcomings of the type-token model. The paper has sought to bring the more recent work from social ontology to the ongoing discussions surrounding the metaphysics of words, and in that way has charted a new path within the literature on the metaphysics of words.

Of course, more work remains, like distinguishing the ontological questions noted above from normative questions involving word kinds, like what kind of features a word kind should admit. The question to ask then is, “*Should* we include such and such conditions for the kind WORD?”, such as conditions that would allow or exclude emojis from being words, or as we saw above, conditions that would allow for quite a bit of latitude in the appearance or sound of some object for the sake of those with a disability. This is not primarily an ontological question but a *conceptual ethics* question or a *conceptual engineering* question that acknowledges the choices that social agents can make when giving reasons for the agent-dependent, normative conditions of some kind like WORD. But such a project must be left for another day.

Acknowledgements Thanks to Christopher Menzel and Nathan Howard for helpful comments on earlier drafts of this work.

Author contributions Not applicable.

Funding Not applicable.

Data availability Not applicable.

Code availability Not applicable.

Declarations

Conflict of interest Not applicable.

References

- Brouwer, T. N. P. A. (2022). Social inconsistency. *Ergo*.
- Cappelen, H. (1999). Intentions in words. *Noûs*, 33(1), 92–102. <https://doi.org/10.1111/0029-4624.00143>
- Epstein, B. (2009). Grounds, convention, and the metaphysics of linguistic tokens. *Croatian Journal of Philosophy*, 9(1), 45–67.
- Epstein, B. (2015). *The ant trap: Rebuilding the foundations of the social sciences*. Oxford University Press.
- Epstein, B. (2019). Anchoring versus grounding: Reply to Schaffer. *Philosophy and Phenomenological Research*, 99(3), 768–781. <https://doi.org/10.1111/phpr.12644>
- Gasparri, L. (2020). A pluralistic theory of wordhood. *Mind & Language*, 2020, 1–18. <https://doi.org/10.1111/mila.12297>
- Hawley, K. (2017). Social mereology. *Journal of the American Philosophical Association*, 3(4), 395–411. <https://doi.org/10.1017/apa.2017.33>.
- Hawthorne, J., & Lepore, E. (2011). On words. *Journal of Philosophy*, 108(9), 447–485.
- Juvshik, T. (2020). Good ‘cat’, bad ‘act.’ *Philosophia*. <https://doi.org/10.1007/s11406-020-00287-2>
- Kaplan, D. (1990). Words. *Aristotelian Society Supplementary*, 64, 93–119. <https://doi.org/10.1093/aristoteliansupp/64.1.93>
- Kaplan, D. (2011). Words on words. *Journal of Philosophy*, 108(9), 504–529.
- Mikkola, M. (2017). Grounding and anchoring: On the structure of Epstein’s social ontology. *Inquiry*, 62(2), 198–216. <https://doi.org/10.1080/0020174X.2017.1312743>.
- Miller, J. T. M. (2019). A bundle theory of words. *Synthese*. <https://doi.org/10.1007/s11229-019-02430-3>
- Schaffer, J. (2019). Anchoring as grounding: On Epstein’s the ant trap. *Philosophy and Phenomenological Research*, 99(3), 749–767. <https://doi.org/10.1111/phpr.12645>.
- Wetzel, L. (2009). *Types and tokens: On abstract objects*. MIT Press.

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