A CONTEXT PRINCIPLE FOR THE 21ST CENTURY

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Abstract: Taking a lead from Eva Picardi's work and influence, I investigate the significance of Frege's context principle for the philosophy of language (setting aside its role in Frege's argument for mathematical platonism). I argue that there are some interpretive problems with recent meta-semantic interpretations of the principle. Instead, I offer a somewhat weaker alternative: the context principle is a tool to license certain definitions. Moreover, I claim that it merely lays out one of many possible ways of licensing a definition. This means, among other things, that despite Frege's imperative injunctions, the context principle formulates a permission—not a requirement.

For several generations of students at the University of Bologna, Eva Picardi's course in the philosophy of language has been a unique portal to a difficult subject matter and an exciting philosophical style. Her lectures on Frege, Russell and Wittgenstein were a treasure trove of bold, and yet seriously scrutinized, ideas about language and how it manages to connect up with reality. As one of these students, I went on to write an undergraduate thesis on Frege's context principle under her attentive and inspiring supervision. This was a fortunate choice, as she was about to devote a good chunk of her subsequent research to the context principle itself

(Picardi 2003, 2010, 2016). In the years since, my interests within philosophy of language have shifted somewhat, but I want to use this opportunity to honor Eva's career and life by resuming that conversation.

The context principle (CP) is one of two core pieces of Frege's methodological legacy. It is often glossed as the requirement that one should never ask for the meaning of a word in isolation, but "only in the context of a proposition". It makes a (somewhat uneasy) pair with another methodological injunction associated with Frege: the principle of compositionality, according to which the meaning of a sentence is composed of the meaning of its constituent expressions.

There are many important problems concerning the proper interpretation and philosophical significance of these principles, and we will get to some of them in order. But the one that got me thinking about *CP* after all these years is rather frivolous: there is a striking gap between the prime importance that Frege scholars ascribe to *CP*[1] and the relatively marginal role it appears to occupy in contemporary philosophy of language and natural language semantics. This is not because contemporary research paradigms have turned their back on Frege. On the contrary, he remains hailed as one the major pioneers of the field. Yet, very few of the main research programs in philosophy of language and semantics are explicitly premised on *CP*. This is in stark asymmetry with the principle of compositionality, which survives as a fundamental tenet in the model-theoretic tradition in semantics (see Szabó 2013 for an overview).[2] To put the point in a somewhat tongue-in-cheek way: I have seen scores of papers rejected from journals and conferences because of violations of compositionality, but I have never seen anyone complain about violations of the context principle.

I can see the sharpshooters lining up to shoot down these claims, so let me qualify them a bit. It is certainly not right to say that no one cares about the context principle. It has been openly embraced by inferentialists (Brandom 1994, sections 7.1-7.2; 2002 ch. 8) and by so-called radical contextualists (Travis 2009). However, it is not clear that these appeals are faithful to the context principle as Frege understood it. Picardi herself (2010, sections 1 and 2) makes a compelling case that Travis's version of the context principle depends on a richer interpretation of 'context' than what Frege had in mind. Serious doubts have also been raised about the accuracy of Brandom's interpretation (Kleemeier and Weidemann 2008). Even setting these interpretational matters aside, there are two points that are worth emphasizing:

(i)   The model theoretic tradition in semantics has largely ignored *CP*. The principle is not mentioned in the dominant textbook in this

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tradition (Heim & Kratzer, 1998). And while it does put in a surprising cameo in another important textbook (Chierchia & McConnell-Ginet, 1990, section 3.1), it is under an interpretation which is considerably weaker than what Frege seems to have had in mind.

(ii)   Almost no one, regardless of philosophical preferences, ever invokes *CP* to argue *against* other views (it is used by those who use it to elaborate their own positions).

This essay proposes an interpretation of the context principle that aims to be as faithful as possible to Frege's writings (spoiler: I don't think we can be entirely faithful) while at the same time being of some value for the modern philosopher of language. My interpretation also aims to explain why the context principle is best used defensively (to articulate one's own views) rather than offensively (to criticize other views). Moreover, I will attempt to do so without relying very much on the role that *CP* plays in Frege's argument for mathematical Platonism.[3] I do not, of course, deny that *CP* is part of an argument for mathematical Platonism. Nonetheless, nothing in *Foundations* suggests that *CP* is *only* of significance for Platonists. If the principle is to be a valuable piece of the philosopher of language's toolkit, it should have purpose and significance when removed from this metaphysical application. If anything, we ought to generalize to the worst case and ask: can the principle be formulated so as to be compelling even for mild nominalists?

This is the plan: section 1 lays down basic background concerning *CP*. Section 2 advances some constraints on an adequate interpretation of it. In particular, it follows several other interpreters (starting with Dummett 1956 and ending with Picardi 2016) in arguing that the slogan "Words only have meaning in the context of a proposition" cannot, literally speaking, be quite right. It will flow out of this argument that the principle must apply in the first instance to *explanations* of meaning—a conclusion which much of the literature already embraces. Section 3 entertains and rejects a recent suggestion to the effect that the context principle concerns *metasemantic* explanations (metasemantic interpretations of *CP* have recently been discussed by Stainton 2006 and Linnebo 2008). Section 4 defends an alternative: I argue that *CP* concerns what I will call *licensing* explanations. These are explanations that are required if a theorist is to accept a definition of a term as successful. In section 5, I use the interpretation of the previous section to reassess some delicate questions about the scope of the context principle. In the concluding section, I will tie up some loose ends.

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1. A brief history of the context principle

Here is a familiar story: at four points in The Foundations of Arithmetic (1884, henceforth *Foundations*), Frege invokes a mantra connecting word meaning with "the context of a proposition". (I assume, with the rest of the literature, that Frege means 'sentence', and not what contemporary philosophers of language mean by 'proposition'.) The exact formulations of the mantra vary a bit:[4]

> *Introduction, p. X*: "ask for the meaning of a word in the context of a proposition, not in isolation; […] If one ignores [this principle], one is almost forced to take as the meanings of words mental pictures or acts of the individual mind".

> §60 "[…] any word for which we can find no corresponding mental picture appears to have no content. But we ought always to keep before our eyes a complete proposition. Only in the context of a proposition have the words really a meaning (*Bedeutung*)".

> §62 "How, then, are numbers to be given to us, if we cannot have any ideas or intuitions of them? Since it is only in the context of a proposition that words have any meaning, our problem becomes this: To define the sense of a proposition in which a number word occurs"

> §106 "We proposed the fundamental principle that the meaning of a word is not to be explained in isolation, but only in the context of a proposition: only by adhering to this can we, as I believe, avoid a physical view of number without slipping into a psychological view of it."

There is an important contrast between the passage from §106, which is explicitly about explanations of meaning, and the passages in §60 and §62, which are ostensibly about when words *have* meanings. (The passage from the introduction seems to be neutral, since "ask for the meaning…" could be understood either way).

Despite these differences in formulation, with the exception of §62, Frege is single-minded about what *CP* is supposed to do: those who ignore it fall into the

murderous embrace of psychologism. They end up taking the meanings of number words to be mental pictures or ideas (call this the *defensive* use of *CP*). The passage from §62 departs from this talking point to pursue a more positive thought: numbers can be "given to us" if we fix the meaning of certain sentences involving numerals.

There is no doubt that any adequate interpretation of *CP* needs to make sense of both these roles it plays in the dialectic of *Foundations*. This is harder to do in the case of the positive use, because we need to simultaneously interpret the principle itself and gain an understanding of what it is for number to be "given to us". For this reason, I generally prioritize the defensive use in shaping my interpretation.

When Frege wrote *Foundations*, he had not yet drawn his celebrated distinction between sense (*Sinn*) and reference (*Bedeutung*)—its official formulation must, of course, wait until his (1892). Naturally, this raises the question whether by using 'Bedeutung' in the 1884 mantra Frege means to state a principle that concerns (i) the technical semantic notion of reference; (ii) the technical semantic notion of sense; or (iii) the non-technical and undifferentiated notion of meaning. Unfortunately, the essays from the 1890s are of little help in resolving this issue because, by the nineties, Frege stops explicitly appealing to the context principle.[5]

Faced with this difficulty, interpreters have converged on a reasonable approach: take *CP* to involve the undifferentiated notion of meaning, but also ask whether the internal logic of Frege's argument suggests an interpretation in terms of sense or one in terms of reference.

Frege might have quit invoking the mantra cold turkey, but his followers in the analytic tradition had a different idea. Wittgenstein endorses the mantra in *Tractatus Logico-Philosophicus* (1921) and in the *Philosophical Investigations* (1946). Quine, too, reached for an interpretation of *CP* in *Two Dogmas of Empiricism* (1951, p. 39) and *Epistemology Naturalized* (1969, p. 72). Among the interpreters, Dummett is most famous for having emphasized the importance of the doctrine within Frege's thinking (this was, remarkably, a four-decades long engagement, see Dummett 1956; 1973; 1981, ch. 19; 1991, chs. 16-17; 1995).

Put this all together and you get a cluster of interrelated questions:

(Q1) how exactly does *CP* figure in the *Foundations'* critique of psychologism.
(Q2) did Frege give up *CP* after *Foundations*?
(Q3) how does *CP* interact with the *Sinn/Bedeutung* distinction?

(Q4) Is *CP* compatible with the principle of compositionality?

(Q5) Did *CP* play a similar role in Wittgenstein's philosophy as it did in Frege's philosophy?

(Q6) Is *CP* a separable component of Frege's philosophy of language?

(Q7) Is *CP* something that contemporary theorists should obey?

Some of these questions have simple, clear and convincing answers. As I noted, for instance, Picardi (2010) argues convincingly that, due to the ontology of propositions in the *Tractatus*, the early Wittgenstein's invocation of the context principle could not possibly be in the same spirit as Frege's. Moreover, as far as the *later* Wittgenstein is concerned, the notion of "context" he employed when he repeated the mantra seems to have been altogether different from Frege's. In particular, Wittgenstein's contexts include *extra-linguistic context*. There is little chance that this might have been on Frege's mind in the *Foundations*. Most of the other questions are still open despite extensive debate. In the rest of this essay, I re-elaborate some familiar answers to (Q1), (Q3), (Q4) and sketch some answers to (Q6) and (Q7).

Before proceeding, let me make some terminological stipulations. First, as is well known, Frege assigns the same semantic profile to proper names ('Michelle Obama') and definite descriptions ('the most famous alumna of Whitney Young High School'). I use the phrase *singular terms* to cover both. Second: the context principle concerns the meanings of sub-sentential expressions, a category that includes both individual words and phrases like definite descriptions. Despite that, in the following, I use the word *word* as a substitute for 'sub-sentential expression'. This is in part to improve readability and in part because that's what Frege uses in the passages I quoted above. Finally, *Foundations* discusses two kinds of singular terms: numerals (e.g. '2') and descriptions formed by means of the cardinality operator ('the number of Jupiter's moons'). I use the phrase *numerical terms* to cover both of these.

2. *How not to interpret the context principle*

One of the main reasons why there is an interpretive problem about *CP* is that the literal interpretation of the principle cannot be quite right. Taken literally, the mantra "Only in the context of a proposition does a word have a meaning" seems to mean something like this:

Literal: meaning is something that word it has only as part of full sentential contexts. Take it out of sentential contexts and it does not have a meaning.

As noted above, you might get specialized versions of this thesis by replacing the undifferentiated notion of "meaning" with technical notions like sense and reference.

Here is one possible analogy for this sort of thought: which direction is this arrow pointing to?

$\rightarrow$

This question only makes sense in a broader context: for example, it could be pointing North, or towards the center of the earth, towards the right side of the page, or towards Alpha Centauri. There is no sense to isolating that object, the arrow-token, and trying to figure out where it is pointing. Similarly, there is no sense to isolating a G# note and asking whether it's a dominant. Only in the context of a scale, or a chord, can a note be a dominant. What is common between these cases is that these the relevant properties seem to have some kind of implicit or explicit relationality.[6] Maybe word meaning is like that.

I don't think this can quite be the point of Frege's version of the context principle. For one thing, this seems obviously false (Linnebo 2009). Consider proper names. There is no theory of proper names on which it's impossible to answer the question "what is the meaning of the name 'Michelle Obama'?". If you think that the meaning is the referent, then that's it. But suppose, you do not. Say that you believe instead that the meaning of the name has two elements, a referent (the woman herself) and a sense (a mode of presentation of the referent). Then that referent and that sense together are the meaning of 'Michelle Obama'. From the contemporary, non-interpretive point of view, the literal interpretation is also incomprehensible: as theorists of meaning and even as ordinary users of the language we can sometimes ask for the meanings of words: there is no reason to suppose that Frege's texts point to a relevantly different practice.

The second problem is that the literal interpretation makes no sense of the defensive use of *CP* in the *Foundations* (or, for that matter, of the positive use). Recall that Frege's negative aim is that we need not expect to explain the meaning of number words by associating them with perceptually given referents.   It is entirely irrelevant to that target to assume that a word *e* lacks meaning when taken on its own.

As Linnebo (2009) puts it, when it comes to the context principle, we must forget the literal reading of the mantra and instead look primarily at how Frege uses it. Furthermore, concerns about reaching for non-literal interpretations ought to be assuaged by noticing (as we did earlier) that the literal interpretation is only encouraged by the formulations in §60 and §62. The other two formulations, in the *Introduction* and in the summary (§106), are compatible with the denial of the literal interpretation.

At the other end of the spectrum, there is a plausible but weak interpretation of *CP* that cannot quite do the work that *CP* is supposed to do. It is often said that *CP* states the primacy, or priority, of sentential meaning over word meaning. Here are a couple of examples drawn from two very different places:

> The Context Principle, as one relating to sense, amounts to the conceptual priority of thoughts over their constituents: the constituents can be grasped only as potential constituents of complete thoughts. (Dummett, 1991, p. 184).

> The Context Principle […] seems to be that (i) the notion of a sentence having a meaning (which Frege identifies with the claim it is used to assert or express) is explanatorily primary, while (ii) what it is for a word or phrase to have a meaning is to be explained in terms of what it is it contributes to the meanings of sentences containing it. (Soames 2014, p. 47)

Unfortunately, that claim is about as equivocal as the word "primacy" is underspecified. Perhaps, the relevant sense of primacy is this:

> **Weak context principle (*WCP*):** the meaning of a word *e* is *e*'s contribution to sentential meaning.

For an analogous case, we might say that the tactical objectives of a striker in soccer are that striker's contribution to the team's tactical objectives. Once again, this can be declined into a thesis about reference (the reference of a word is its contribution to the reference of the sentence) and into a thesis about sense (the sense of a word is its contribution to the senses of the sentences it contains).

WCP is far from vacuous: if sentential meanings are truth-conditions, then the meaning of a predicate is its contribution to the truth-conditions of a sentence. If the sense of a sentence is a structured proposition, then the sense-variant of *WCP*

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requires that the sense of a name be what the name contributes to that structured proposition. Still, the idea is pretty plausible and arguably satisfied by any modern theoretical account of linguistic meaning.

I do not doubt that *WCP* is part of what is involved in the context principle. I doubt, however, that it can capture the whole content of *CP*. As in the case of the literal interpretation, it is not clear how this formulation accounts for the negative application of *CP* in *Foundations*. Suppose you did *not* think that a word's meaning is to be identified with its contribution to sentence meaning. Why would that force you to identify the meaning of the numeral '3' with a mental picture? No explanation of this is forthcoming because the supposition we are operating under is so open-ended that it provides no guidance. Part of the problem here is that *WCP* is a constraint that simultaneously operates on word meaning and on sentence meaning. Nothing specifically follows from it about word meaning, unless we make assumptions about sentence meaning. The context principle must have content that goes beyond that of *WCP*.

As for what this extra content is, I think the basic idea is well put in Linnebo (2009): the Context Principle in *Foundations* concerns in the first instance *explanations of meaning*. It's not that you can't ask the question: "What is the meaning of a word *e*?". It's that you can't expect an explanatory answer to that question to be wholly independent of the semantic properties of sentences.

3.   *Metasemantic Explanation*

But what kind of explanation is at stake? And what exactly needs explaining? In this section, I discuss the hypothesis that Frege is concerned with *metasemantic* explanation.

Metasemantics, broadly understood, is the study of the facts in virtue of which semantic properties hold. It is the job of a metasemantic theory, for instance, to characterize the facts in virtue of which the word 'koala' has the semantic value that it does. The distinction between semantic and metasemantic inquiry is nicely illustrated by the case of non-verbal signals. Contrast these two dialogues:

> **Semantic inquiry.** *Q*: what is the meaning of a red octagonal street sign with the word 'STOP' written across it? *A*: cars approaching the sign are required to stop before proceeding through the intersection.

Metasemantic inquiry. *Q*: why does that sign have that meaning? *A:* Because the traffic authority established (and enforce) this conventional association.

Although the label is relatively recent, many classical theories in philosophy of language are metasemantic. This is the case for the sophisticated conventionalism defended by Lewis (1975), according to which the conventions that underlie linguistic meaning are regularities of behavior embedded within a particular structure of mutual expectations.[7] Similarly, Stalnaker (1998) argues that Kripke's causal theory of reference is best viewed as a metasemantic hypothesis. The same is true of Lewis's doctrine of *reference magnetism* (Lewis 1983)—according to which part of what makes an assignment of meanings to predicates correct is the degree of naturalness of the properties they are to denote.

According to the metasemantic interpretation, the context principle constrains explanations of why words have the meanings they have.[8]

Metasemantic Context Principle (MCP): word *e* has meaning *m* in part because a range of sentences involving *e* are meaningful.

According to this thesis, word meaning is grounded in sentence meaning. Numerical terms (like 'the number of registered vehicles in Chicago') mean what they do because a range of sentences involving them are meaningful. In particular, these sentences must involve all the identity statements in which such terms can figure. The metasemantic context principle need not be one's entire metasemantic theory: there might be further facts in virtue of which those core sentences are endowed with meaning. Moreover, presumably, at some point, usage among the members of a linguistic community should show up in the metasemantics. That would constitute and additional layer of the theory.

If *MCP* generalizes beyond numerical terms, say to cover names of concrete objects like 'Michelle Obama', then it claims that the facts in virtue of which 'Michelle Obama' means *m* include the fact certain sentences have meanings. A further question still is whether the metasemantic context principle should extend to other syntactic categories.

Though far from obvious, and clearly in need of defense, *MCP* is an interesting thesis for the modern philosopher of language to evaluate. It also has some benefits as an interpretation of Frege: under this interpretation, the context principle is not really in tension with the principle of compositionality. Given compositionality, the meanings of complex expressions must depend on—and

perhaps be composed of—the meanings of their constituents. But that's compatible with the idea that the facts that ground word meanings are partly determined by sentence meanings. The dependence that is claimed in compositionality and the reverse dependence that is claimed by *MCP* operate on different levels.[9]

    MCP is a very strong claim about the nature of semantic properties. It would be extremely surprising if Frege thought that such a claim could be stipulated without any kind of justification. I suspect that this is a reason to doubt that *MCP* could possibly be what Frege had in mind. Of course, the fact that the context principle is presented without justification is an embarrassment for virtually every interpretation. Still, we should be wary of any proposal that requires *CP* to be much stronger than the argument demands, and, unfortunately, *MCP* is much too strong for the demands of the argument. The argumentative goal of §§ 58-60 of *Foundations* is to establish the thesis that it is possible to refer to objects of which we cannot form any sensible images. If *MCP* were right, it would deliver an explanatory account of how numerical terms in fact *do* refer to these objects. In other words, at a point where the argument merely demands a proof of concept of sorts, Frege would fire back with an unsupported and sweepingly general metasemantic thesis about how they in fact work.

    But what other kind of explanation of meaning might we seek? Let me try to approach my view by thinking through a concrete example. Suppose I gather the people of the Earth and declare that 'wowee' is to be a new singular term. I claim that it is to denote the largest star in the universe. Imagine that I have the authority to get a linguistic practice going this way. After my declaration people start using 'wowee' just in the way I said. Imagine further that it is common knowledge between me and my audience that I do not have a particular star in mind which I believe to be the largest in the universe.

    It seems to me that this scenario largely settles the metasemantic questions. There might or might not be a unique largest star. But if there is, I am successful in referring to it—whether I know that such a star exists or not. In this case, then, we have a semantic fact:

    (F) 'wowee' refers to the largest star

    We can ask the metasemantic question: why does (F) hold? And the story stipulates a simple answer: somehow, I have the power to get a linguistic practice going which helps link up that word with things; I have used this power to declare that 'wowee' is to refer to this celestial body.

But it is possible to press another question—one that parallels the question Frege is asking in §§ 58-60: how might one know whether my declaration successfully established that 'wowee' has a referent? That requires a different sort of account—in particular it requires an argument to the effect that there is exactly one star with maximal size. This account is not itself part of metasemantics, since it need not have anything to do with the facts in virtue of which 'wowee' refers to the largest star. Suppose that my friend Alexis knows that there is a unique largest star. Alexis is in a position to vouch that my introduction of 'wowee' was successful. But there are many ways for Alexis to have obtained the relevant knowledge. Maybe she derived it from the laws of physics, maybe she was able to measure the sizes of all the stars in the universe, or maybe a very knowledgeable being whispered it in her ear. None of these justifications belong to the metasemantic story. There is typically *one* correct metasemantic story about why words mean what they do, but there are many ways we might gain the knowledge that the metasemantic fact holds.

4. Licensing Explanations

My view is that Frege believed that successful definition of numerical terms required the sort of guarantee that Alexis is able provide in the case of 'wowee'. In fact, this sort requirement shows up explicitly in a famous a passage from *Über Sinn und Bedeutung*:

> A logically perfect language (*Begriffsschrift*) should satisfy the conditions that every expression grammatically well constructed as a proper name out of previously introduced signs shall in fact designate an object, and that no new sign shall be introduced as a proper name without being secured a reference (*Bedeutung*). In logic, one must be wary of ambiguity of expressions as a source of mistakes. I regard as no less pertinent against apparent proper names that have no reference (*Bedeutung*). The history of mathematics supplies errors which have arisen in this way. This lends itself to demagogic abuse as easily as ambiguity […]. 'The will of the people' can serve as an example; for it is easy to establish that there is […] no generally accepted reference (*Bedeutung*) for this expression. (p. 41, slightly modified from the Geach translation)

Of course, in natural language we don't often go about introducing new terms as one would do in a formal language. But the project of *Foundations* is

neither to describe a human linguistic practice, nor to specify the semantics for a formal language. It is to provide an analytic derivation of the truths of arithmetic based, among other things, on definitions for numerical terms. To be confident that this project is in order, we need a justification similar to the one Alexis provides in the fictional example of 'wowee' and to the one Frege claims we lack in the case of 'the will of the people'. To state the requirement a bit more precisely, this is what we need (here "we" means "mathematical philosophers engaged with the Fregean definition project").

> **Definitional licensing**: we are licensed to claim that a definition of singular term *t* has provided it with meaning only if we have a guarantee that the object that *t* purports to refer to exists and is unique.

This kind of check—for the existence of referents of defined singular terms—is both standard mathematical practice and implicit in Frege's procedure in *Foundations*.

So far, I have attributed to Frege the view that, to accept a definition as successful, we must provide evidence that its referent exists and is unique. But what does the context principle have to do with all of this? According to my interpretation, the main role of the context principle in the *Foundations* is to highlight an easy-to-miss way of satisfying this requirement. Specifically, in §§ 58-60 Frege is pushing back against this argument:

> (P1) A definition of numerical term *t* can be recognized as being correct only if we have a guarantee that the object that *t* purports to refer to exists and is unique.
> (P2) But we have such a guarantee only if numbers are sensible objects.
> (P3) But numbers are not sensible objects.
> (C) So, a definition of *t* cannot be recognized as correct.

Frege endorses (P1) and (P3), but rejects (C). The context principle is invoked in order to justify rejection (P2) and support the thesis that, once you have secured truth-conditions for a broad enough class of sentences—crucially a class containing all the identities between numerical singular terms—the definitional licensing requirement is satisfied.

Summing up, the import of the context principle can be characterized as follows:

Licensing Context Principle (*LCP*): the requirement of definitional licensing concerning a singular term *t* is satisfied if we have a guarantee that all of the identity statements involving *t* are meaningful.

Once this perspective is adopted, some of the puzzles surrounding *CP* get immediate answers. For example, we asked at the outset whether the principle applies to the notion of reference. Given the interpretation I am advancing, this is inevitable. This is because among the essential constraints that the definition of term *t* must satisfy is an argument that it, in some sense, it refers.

I add the qualification "in some sense", because if this is a requirement that can be cleared by the sort of strategy suggested by the context principle (i.e. by setting the meanings of certain sentences), this is a notion of reference that even a moderate kind of nominalist could live with. My sympathies here are strongly with Dummett's (1991, ch. 15) contention, echoed by Picardi herself (2016), that the theoretical framework of *Foundations* lacks the resources to distinguish between a robust realist construal of the reference relation and a more moderate one.[10]

Among the questions that we are in a position to address is also the vexed matter of whether the context principle is compatible with compositionality. The answer is that it is compatible, for the broadly Dummettian reason that the two principles claim explanatory priority in two different senses. Compositionality is about how semantic values depend on each other, while *CP* states that *sometimes* we go about justifying the meaningfulness of a definition or of a linguistic practice by pointing to the semantic properties of certain sentences. Similarly, we can explain how within the context of *Foundations* Frege can at the same time maintain that he has substantively used the context principle and yet provide an explicit definition of numerical terms. After all, under the present interpretation is simply not a constraint on the form of the definition.

5. *The limited scope of the context principle*

Much of this aligns with some of Dummett's influential views about the role of the context principle. But on one issue, I think the above discussion requires a revision of Dummett's position. Once we adopt the view that the context principle should be mainly interpreted as in *LCP*, two questions arise concerning its scope. The first question is: does *LCP* apply to all singular terms? Or could we instead have a tempered version of the principle that only applies to singular terms denoting mathematical and other abstract objects? The other important question is whether

LCP applies to expressions across all syntactic categories (e.g., does it apply to predicates, function symbols, quantifiers)?

With regards to the first question, we need to disambiguate between two possible ways of hearing the word "apply". Again an analogy is helpful. Imagine a fictional country, the Shire, with these laws:

> **Norm 1.** Voting in the Shire requires citizenship in the Shire
> **Norm 2.** One has citizenship in the Shire if one has resided in the Shire continuously for five years.

The logical structure of these norms is the same as the one I have sketched for the context principle: Norm 1 lays down a requirement and Norm 2 articulates one way of satisfying that requirement. Now, consider Frodo who has resided in the Shire for less than five years: does Norm 2 apply to him? In one sense, the answer is "no": Frodo does not satisfy the condition stipulated in the antecedent of Norms 2. If he meets the requirement for voting in Norm 1's requirement, it is not because he satisfies the condition specified in Norm 2. In another sense, the answer is "yes": Norm 2 applies to Frodo just as much as it applies to anyone else who lives in the shire. You don't need to satisfy the antecedent of the norm for it to apply to you.

The case of the context principle is structurally analogous: *LCP* characterizes a way for us to be satisfied that a certain expression is meaningful. As such, it applies with equal force to every term. If we wanted to introduce the name 'Michelle Obama' in our linguistic practice we can acquire the relevant license by following the path indicated by *LCP*. But that does not mean that there are no other ways for us to acquire that license. When we look at the variety of singular terms in our language we need not expect that the Licensing requirement is satisfied in the same way for every term.

One unexpected implication of my reading of *Foundations* is that it is consistent to think that the name 'Michelle Obama' is licensed by direct contact with the object. This puts me at odds with mainstream views about the interpretation of the context principle. Here for instance, is Wright:

> The really fundamental aspect of Frege's notion of object and concept is that they are notions whose proper explanation proceeds *through* linguistic notions. (Wright 1983, p. 13)

This is an intriguing picture, but it comes with the huge interpretive cost that Frege never tries to the defend it, as Wright himself acknowledges (1983, p. 15).

My interpretation is also likely at odds with one of the conclusions of Dummett's interpretation:

> The realist interpretation could be jettisoned without abandoning the context principle itself, but only if that principle, as here understood, can be shown to be coherent; and this remains in grave doubt. And yet it is hard to see how it can be abandoned, so strong is the motivation for it. The alternative is an apprehension of objects, including abstract objects, underlying, but anterior to, an understanding of reference to them or, indeed, a grasp of thought about; and this is a form of realism too coarse to be entertained. (Dummett 1995, p. 19)

Strictly speaking, I agree that the context principle is meant to show that "direct apprehension" cannot be the *only* means of securing meaning for singular terms. But a stronger claim is implied here: that there is something wrong with a mixed picture on which the licensing requirement is sometimes satisfied *via* the context principle, sometimes *via* direct apprehension.

Something similar should be said about the question whether the context principle applies across syntactic categories. When the semantic theorist claims, for instance, that the semantic value of "smokes" is a function from individuals to truth-value that maps smokers to the true and non-smokers to the false, we need some kind of assurance that such a function exists. In principle, we could provide this assurance through *CP*-like reasoning. But in practice, we do so by relying on basic assumptions about existence of individuals and truth-values as well as function-existence assumptions.

6. Conclusions

To conclude, I want to connect this discussion back to the issues that prompted me to rethink about the context principle and to the main outstanding questions from my earlier list:

> (Q6) Is *CP* a separable component of Frege's philosophy of language?
> (Q7) Is *CP* something that contemporary theorists should obey?

An affirmative answer to (Q6) is possible, but something must be added to the story I just told. Because I limited my interpretation to *Foundations*, questions

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about natural language have not really been within our theoretical sights. When we theorize about natural language, the constraints that guided Frege's thoughts on definitions need not apply. Still, you might ask a parallel question to the one that is behind the requirement of definitional licensing: how do I know that some term *t* of my language refers? And one possible answer might be that this can be known by being able to fix the truth-conditions of certain sentences involving the term—without actually having any causal contact with the referent of the term. As with all these views, it is impossible, and not entirely intellectually honest, to say that one is for, or against, them, in advance of actually spelling out their detail.

As for (Q7), I think that the answer is that there is no such thing as obeying the context principle. If my interpretation is correct, the principle is meant to point to a way of satisfying certain requirements—it is not a requirement itself. Still, one may ask if this is a path to satisfying the requirement that any contemporary theories exploit. The answer I provide to this question is the same that would be given by a proponent of the metasemantic interpretation: one cannot simply look at one's favorite semantic model and extrapolate whether the context principle is satisfied. The difference is that the metasemantic interpretations would say that the context principle might show up when we tell the story about what is it in virtue of which singular terms denote what they denote. On my preferred story, the context principle can come to help when we ask how we are entitled to the belief that various terms of our language have denotations and, more generally, meanings. This is typically going to be particularly pressing for names of abstract objects, if there are any, for in that case, the causal route is blocked.

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[1] As we will see, Dummett's engagement with the context principle spanned his entire career, but see Pelletier, 2001 for a remarkable catalog of authors.

[2] Frege scholars draw a distinction between the *principle of compositionality* (that the meanings of sentences are composed of the meanings of their parts) and the *principle of functionality* (the meanings of sentences are functionally determined by the meanings of their parts). When theorists in the model-theoretic semantics traditions talk about 'compositionality' they usually refer to something closer to functionality, since compositionality properly understood requires meanings to have mereological structure.

[3] Discussions of the context principle and its relationship to definition by abstraction have been central to the Neo-Fregean program. Key references include Wright (1983), Hale (1987), Boolos (1990), Wright & Hale (2001). This debate goes quite beyond the relatively limited set of questions I intend to ask about the context principle here.

[4] English translations are mostly Austin's with some touch-ups for clarity and accuracy.

[5] That is to say: he stops using the mantra. One of the main fault lines in the secondary literature concerns whether there are passages that could be viewed as later occurrences of *CP*. Resnik (1967) claims that Frege gave up the context principle; by contrast, Dummett might have contributed the most to an argument that a version of the doctrine survives in his later works. The most plausible view of the matter seems to be this: there is no explicit reliance on the principle but that doesn't mean that he wasn't relying on the same kind of insight (Dummett 1981, ch. 19). Still, this means that the later work is of little help in interpreting the principle. This is because, from this perspective, we must, first, interpret the principle as it occurs in *Foundations,* and then evaluate whether there are instances of similar reasoning in later works.

[6] This relationality seems different from the concept of relational properties that is prevalent in metaphysics. On that usage, a property *P* is relational just in case an object's having *P* depends essentially on its standing in certain relations to other objects. For example, *being a husband* is such a property. The examples in the text, instead, are cases of properties whose applicability to objects presupposes certain other facts.

[7] Also metasemantic is the naïve conventionalism mocked by Quine in the introduction to Lewis's "Convention": "When I was a child I pictured out language as settled and passed down by a board of syndics, seated in grave convention along a table in the style of Rembrandt".

[8] This interpretation of *CP* is defended by Linnebo (2010) and, before that, it was critically explored by Stainton (2006).

[9] See Linnebo (2009, §6.2). Linnebo imports this equivocation account of the conflict into the metasemantic picture from an analogous diagnosis of equivocation by Dummett (1971, pp. 3-7) and Dummett (1981, p. 547).

[10] Picardi also draws attention to an important discussion in Carnap's *Aufbau*. Carnap (1940, section 40) was happy to take contextual definitions on board, provided that numerical terms were understood as denoting "quasi-objects. "Carnap's (1928) interpretation of Frege's conception of classes captures important features of [*Foundations*], and indirectly supports Dummett's diagnosis that only a thin conception of reference is appropriate to [*Foundations*]. I find it difficult to decide which way we should go: [*Foundations*] seems hospitable both to Carnap's and to Wright's interpretations, for it is semantically underdetermined." (Picardi 2016, p. 54).