6 Platonism in Lotze and Frege

Between Psyschologism and Hypostasis

Nicholas F. Stang

Introduction

[W]e are all convinced in the mosment in which we think the content of any truth, that we have not created it for the first time but merely acknowledged it. It was valid before we thought about it and will continue so without regard to any existent of any kind, whether things or us, and whether or not it ever finds application in the actuality of existence, or becomes an object of cognition in the actuality of being thought.

(Lotze, Logik §318)

The thought we expressed in the Pythagorean theorem is timelessly true, true independently of whether anyone takes it to be true. It needs no bearer. It is not true only from the time when it was discovered, just as a planet, even before anyone saw it, was in interaction with other planets.

(Frege, "Der Gedanke")

A towering figure in late 19th- and early 20th-century German philosophy, Hermann Lotze (1817–81) was a major influence in continental Europe as well as England and North America. Not only Rickert, Cohen, and Husserl, but also Bradley, Royce, and James were all importantly influenced by his writings. However, despite a sizeable scholarly literature, and at least one recent high-profile monograph, Lotze no longer commands the kind of attention that inspired Heidegger to describe his *Logik* as the "foundational book of modern logic."

Lotze wrote about all major areas of philosophy (including metaphysics, aesthetics, religion, and history of philosophy), but the work for which he is now primarily known is *Logik*, first published in 1843 and then in a substantially revised version in 1874 as the first part of

¹ For more on Lotze's influence, see Beiser (2013), 128–31, Dahlstrom (1994), 35–37, and Gottfried Gabriel's introduction to Lotze (1989a).

² Beiser (2013), a study of Lotze and another forgotten giant of 19th-century German philosophy, Adolf Trendelenburg.

³ Quoted by Beiser (2013), 130 n. 9.

his System der Philosophie. Lotze's work on logic was part of a larger reaction against psychologism, empiricism, and naturalism in late 19thcentury German philosophy. In Book III, Lotze makes a famous distinction between existence (Dasein) and validity (Gültigkeit). The former characterizes the mode of being of mental and physical objects and events, while the latter characterizes the mode of being of propositions: they are valid or invalid, but they do not "exist" as mental or physical objects. Lotze was by no means the only figure in this period concerned to articulate the ways in which contents of acts of judgement are ontologically distinct from mental and physical events. This was a recurring theme of Brentano's school and of the phenomenological movement that grew out of it. But Lotze's way of drawing this distinction in Book III of the Logik was massively influential. It became a kind of rallying cry for a generation of philosophers who wanted to reject the crude naturalism that had flourished in Germany after the waning of Hegel's influence. Hans-Johann Glock goes so far as to identify Lotze as the father of the whole German antipsychologistic movement.⁴

Lotze introduces that famous distinction in the course of explaining that he is a follower of Plato, although not a "Platonist" as that term has come to be understood. Early in the reception of Plato, according to Lotze, he was misread as "hypostasizing" the Forms. Properly understood, Plato was merely making the distinction between the content of judgement (atemporal and non-spatial propositions, composed of atemporal and non-spatial concepts/Forms) and our spatially located and temporally extended mental events of judging those contents. Lotze distinguishes between the mistaken hypostatic reading of Plato, on which the Forms (concepts, constituents of truths) are treated as entities in their own right, existing in some kind of platonic heaven, and the "true" Platonism, in which the doctrine of Forms is only intended to make the distinction between what exists (mental and physical objects and events) and what is valid (propositions/contents of acts of judgement, and, derivatively, the Forms/concepts composing them).

The aim of this essay is to understand Lotze's non-hypostatic Platonism. In order to shed light on Lotze's doctrines, I compare them to those of Gottlob Frege, a near-contemporary whose commitment to Platonism is the subject of a sophisticated scholarly literature. Frege's reputation has undergone the opposite reversal to Lotze's: obscure in his own lifetime until he was "discovered" by Russell and Wittgenstein, Frege is now recognized as one of the main figures of 19th-century philosophy and canonized as a founder of analytic philosophy (at least according

⁴ Glock (2015), 74.

⁵ To emphasize that I am not making any claims about the historical Plato, I do not capitalize "Platonism."

to the standard narrative). Although he was a lifelong opponent of psychologism, it is a matter of controversy when, and to what extent, he endorsed a Platonist view about the ontological status of numbers, concepts, and thoughts. Looking to Frege in order to understand Lotze is natural, given that Frege was already linked with Lotze in the minds of his contemporaries. Bruno Bauch, who invited Frege to publish "Der Gedanke" in his journal, *Beiträge zur Philosophie des deutschen Idealismus*, prefaced it with an essay of his own, "Lotzes Logik und ihre Bedeutung im deutschen Idealismus," in which he describes Frege's work as continuous with the philosophical project of Lotze.

As the earlier quote from "Der Gedanke" suggests, it would be natural to take Frege as a representative of precisely that hypostatic form of Platonism that Lotze rejected. Lotze rejects the existence of thoughts, for thoughts have validity, not existence (*Dasein*), while Frege (at least by 1892) accepts that there exist (there are) thoughts, even though they are not actual (*wirklich*). 9

In this essay I will argue, against this tempting story, that the difference between Lotze's Platonism and hypostatic Platonism is not a difference in *ontology*—whether there are propositions—but a difference in meta-ontology: what there being propositions amounts to. To provide a more precise characterization of this distinction, I borrow some ideas from a reading of Frege developed by Thomas Ricketts and Erich Reck. 10 On the non-hypostatic reading of Frege that Ricketts and Reck develop, the fact that there are thoughts (propositions) is not a fact distinct from the laws of logic; instead, the fact that the thought that p exists and is true *just is* the fact that p. By contrast, for the hypostatic Platonist, these are distinct but mutually necessarily entailing facts. The existence of propositions is something metaphysically "over and above" the laws of logic. While remaining neutral on whether Ricketts and Reck have interpreted Frege correctly, I argue that they have provided the correct frame for interpreting Lotze, specifically how we can be nonhypostatic Platonists (distinguishing the Gültigkeit of propositions from the Dasein of mental and physical objects) while accepting, with the

⁶ For a critical discussion of Frege's Platonism, see Weiner (1990), 176-226.

⁷ While studying at Göttingen, Frege had attended Lotze's lectures, but they were on the philosophy of religion. See Gabriel's Introduction to Lotze (1989a), xiii.

⁸ Bauch (1918–19), 48. Bauch agrees with Glock's high assessment of Lotze's importance (see earlier): "[D]er moderne Kampf der Logik gegen die Unlogik des Psychologismus [ist] ohne Lotze überhaupt nicht zu verstehen" (44). The relation of Lotze and Frege is the subject of a famous Auseinandersetzung between Michael Dummett and Hans Sluga: see Sluga (1975), (1976), (1977), (1980); Dummett (1973), (1976), (1981a), (1981b), (1982). For a discussion of that debate, see the Gottfried Gabriel's Introduction to Lotze (1989a).

⁹ See §3 for details.

¹⁰ See Ricketts (1986) and (1996), Reck (2005) and (2007).

mature Frege, that *there are* propositions, or, as Frege would call them, thoughts (*Gedanken*).¹¹

In the section "Validity and Existence in *Logik*, Book III," I explain Lotze's famous distinction between existence and validity in Book III of *Logik*. In the following section, "Lotze's Platonism," I put this famous distinction in the context of Lotze's attempt to distinguish his own position from hypostatic Platonism and consider one way of drawing the distinction: the hypostatic Platonist accepts that there are propositions, whereas Lotze rejects this. In the section "Two Perspectives on Frege's Platonism," I argue that this is an unsatisfactory way of reading Lotze's Platonism and that the Ricketts-Reck reading of Frege is in fact the correct way of thinking about Lotze's Platonism.

Validity and Existence in Logik, Book III

Although Lotze originally introduces the existence-validity distinction in the broader context of his rejection of "hypostatic" Platonism, I am going to explain this distinction first and only then turn to examining Lotze's Platonism. I proceed in this way because the existence-validity distinction will give us key conceptual resources for articulating Lotze's platonic commitments.

First of all, Lotze's distinction is not in fact a dichotomy (existence vs. validity) but a fourfold distinction among kinds of "actuality" (Wirklichkeit). This is an odd terminological choice, since at least one of the main categories of actuality, validity, does not act (wirken) in any sense (it has no causal efficacy). It is also crucial, in the context of an essay like this one, not to confuse Lotze's use of the term with Frege's. Frege uses "actual" in a way that one would expect, given its etymology: the actual, for Frege, is, roughly, whatever is in space and time and causally efficacious. 12 This cannot, of course, be what Lotze means by "actuality" because one of the main species of actuality, namely validity, is characterized by being non-spatio-temporal and causally inert. Nor is actuality modal in any important sense. Insofar as there is modality in Lotze's system, it is orthogonal to actuality; within each species of actuality we can distinguish between what is merely possible and what is actual in the modal sense. For instance, existing objects are actually (in the modal sense) a certain way, but possibly different.

¹¹ Gottfried Gabriel, who has done more than anyone to explore the relation of Frege and Lotze, gives a similar, but much briefer account, in his Introduction to Lotze (1989b). For more on Frege and Lotze on the ontological status of thoughts/propositions, see Gabriel (1986), (1996), (1998), and (2002).

¹² Frege (1884), §26, §85; in Frege (1918–19), he admits that thoughts have a kind of *Wirklichkeit* because they can be indirectly causally efficacious, e.g. an agent can cause a change in the world because he grasps a certain thought.

Lotze explains his terminological choice of "actuality" as follows:

There is a very general concept of affirmation or positing, which we encounter in various investigations, the indication [Bezeichnung] of which languages typically lack an abstract expression of the requisite purity, for they do not in the first place concern themselves with the simplest elements of thought, but with very complex and concrete representational contents [Vorstellungsinhalte]. But it would not be wise to invent a technical term to represent it, the meaning of which would always be doubtful, because it could never come naturally to the lips or the thoughts of anyone; the very term "positing" [Position], which is frequently used for it, suggests by its etymological form the quite inappropriate connotation of an act, or operation of positing, to the execution of which the affirmation which we wish to indicate then seems to owe its being. We will instead stick to ordinary speech and must choose a word that, recognizably in ordinary usage [Gebrauch], proves itself at least to approximate to the expression of thought we seek.

 $(L §316, 511)^{13}$

Lotze eschews the coining of a technical term, for that would be artificial. More interestingly, he eschews the use of the term "positing" (*Position* or *Setzung*), which figures so prominently in the writings of the classical German idealists. ¹⁴ He does not want to use "positing" because it connotes that what is posited (*das Gesetzte*) owes its being to the act of its positing or its being posited (*gesetzt sein*), a connotation that was fully endorsed by some idealists (e.g. Fichte). Intriguingly, in the fullest explanation he ever gives of his own use of the term, Kant equates positing with *being* in general: "The concept of positing (*Position*) or setting (*Setzung*) is perfectly simple: it is identical with the concept of being in general (*Sein überhaupt*)." ¹⁵ Lotze eschews "positing" because of its idealist connotation of a dependence of the posited upon the positing, but "being" carries with it no such idealist connotation. Nor does it carry any connotation of being spatio-temporal or causally efficacious.

Thus, I propose we read Lotze's fourfold distinction among kinds of actuality as a distinction among kinds of *being*. The passage continues as follows:

For indicating this thought in German, the word actuality (Wirklichkeit) will serve. For we call a thing actual (wirklich) if it is, in

¹³ L stands for Lotze (1989b). All translations from Lotze are my own, though I have consulted Bosanquet's translation, Lotze (1884). I have rendered Lotze's use of Fettdruck (i.e. extra spacing between characters) as italics.

¹⁴ E.g. the ubiquity of the term setzen in Fichte's Wissenschaftslehre.

¹⁵ Kant (1992), 119.

contrast to another which is *not*; we call an event actual if it *occurs* or has occurred, in contrast to one which does not occur; we call a relation actual if it *obtains*, in contrast to one that does not obtain; and finally, we call a proposition actually true [wirklich wahr] if it is valid [gilt] in contrast to one whose validity [Geltung] is still open to question. This linguistic usage is intelligible: it shows that by actuality [Wirklichkeit] we always intend an affirmation, the sense of which, however, varies greatly according to which one of these different forms it assumes; it must assume some one of these, and none of them is reducible to the others or contained in it. For we can never make an occurrence out of being, and the actuality which belongs to things, namely being, never attaches to events; events never are, but occur; a proposition neither is, like things, nor occurs, like events; in itself [...] its actuality consists in its being valid [gültig] and its opposite in not being valid.

 $(L \S 316, 511)^{16}$

On my reading, Lotze is distinguishing among: (1) *existential* being: the being of a thing; (2) *eventual* being: the occurrence of an event; (3) *relational* being: the holding or obtaining of a relation; and (4) *veritative* being (validity, truth): it being the case that $p_{\mathbf{k}}^{17}$ With respect to (4), it is crucial to note that not all propositions are valid. As Lotze writes: the actuality of a proposition "consists in its being *valid* and its opposite not being valid" (see earlier). This is why I have coined the more general category of "veritative" being: being either true (valid) or false (invalid).

Lotze explicitly addresses the relation of his category of actuality to being in the course of explaining why Plato was misinterpreted, even by his own school:

Plato wanted to teach nothing other than what was discussed above: the validity [Geltung] of truths, regardless of whether they are verified, as their way of being, by any objects in the external world. [...] But the Greek language, then and later, lacked an expression for this concept of validity that contains no being: precisely this expression, being, took its place, often unproblematically, but in this case quite fatefully. Every content graspable by thought, when one wanted to consider it as unified in itself and distinct from others, for which the schools later coined the not totally incorrect name of "thought-thing"

¹⁶ Lotze expresses validity by the verb *gelten*, but in English "valid" is an adjective which requires completion by the copulative verb "be." English-language readers should thus be aware that some uses of "is" are merely artefacts of translation.

¹⁷ In some contexts, Lotze identifies being (*Sein*) specifically with the first form of actuality, i.e. existence. See §4 for a more complete discussion of these passages; in brief, I think that Lotze is identifying the first kind of actuality with the being of *things* (in a sense to be specified), not with being in general.

[Gedankending)], was for the Greeks a being [Seiendes], on or ousia. And when the distinction between an actually and an allegedly valid truth [wirklichen geltenden Wahrheit] came into question, the former was also an ontos on; the Greek language never knew how to indicate that actuality of mere validity without the constant confusion [Vermischung] with the actuality of being; the expression of the Platonic thought also suffered from this confusion.

(L §317, 513-4)

I will discuss Lotze's distinction between "hypostatic" and "logical" Platonism in the next section, but for now I want to focus on the linguistic point he makes here. Ancient Greek, he claims, had only one set of expressions for the first and the fourth of Lotze's modes of actuality: the verb "to be" (eimi) and the nouns formed from it (e.g. ousia, to on). 18 So Plato had to express his doctrine of the abstract validity of propositions in terms that were inevitably misread as postulating the existence of propositions as abstract things. Lotze's blaming of the misreading of Plato on the lack of an alternative to words formed from the verb eimi ("to be") may suggest that my proposal to think of modes of actuality as modes of being is misguided, but I think that it in fact confirms my reading. Both Sein and "being" (as well as eimi) allow for multiple senses, both the "existential" sense (there are/es sind) and the "veritative" sense (in which it is the copulative verb). So long as we are careful not to conflate these two, we will not assume, like Lotze's ancient Greeks, that the being of valid propositions is the existence of things.

In some contexts, Lotze simplifies this fourfold distinction into a simple distinction between existence (*Dasein*, sometimes *Realität*, sometimes *Sein*) and validity (*Gultigkeit/Geltung*, sometimes objectivity, Objectivitat). In a way, this is very natural, for arguably there is no deep difference between existential and eventual being: the occurrence of an event just is its existing (assuming there are no non-occurring events). Likewise, from the point of view of later logic, we can assimilate the obtaining of a relation to the truth of a proposition: the relation R obtains among $x_1, ..., x_n$ just in case the proposition that $R(x_1, ..., x_n)$ is valid. Lotze is thus willing to compromise somewhat on the irreducibility of the four different categories of actuality/being, but never on the irreducibility of the first category (*Dasein*) to the fourth (*Geltung*). Veritative being (including the holding of relations) is simply irreducible to the existence of things and the occurrence of events. I will therefore focus on the distinction between existence and validity.

On Lotze's antipsychologistic view, propositions are not identical to the mental representations by which they are grasped, much less the

¹⁸ Cf. Rödl (2012), 31-32.

¹⁹ See L §3, §319-20. Cf. Dummett (1982), 96, on Lotze's shifting terminology.

written and verbal marks by which they are expressed. Lotze thinks of mental representations as ultimately events, having actuality/being of type (2). Given the irreducibility of the four kinds of actuality/being, a proposition (the content of a belief event) cannot be identical, or reducible, to any set of events, no matter how complex. A proposition is timelessly true or false. Consequently, it cannot be identified with any set of mental or physical events or constituents, which come into and go out of existence:

Representations, insofar as we have them and grasp them, possess actuality in the sense of an event. They *occur* in us, for as expressions of a representational activity they are never a being at rest [ein ruhendes Sein] but a continual becoming; their content, on the other hand, so far as we regard it in abstraction from the representational activity which we direct at it, can no longer be said to occur, though neither again does it exist as things exist. Rather, it is merely valid [gilt].

(L §316, 512)

A true proposition is true whether or not anyone ever holds it to be true, or even grasps it; all such "holdings" and "graspings" fall in the Lotzean category of events, actuality/being of type (2).

Validity (truth), according to Lotze, is timeless, aperspectival, independent of position, and independent of whether any subject ever thinks that *p*. The predicate "is true" makes no reference to time, speaker, position, etc. A proposition is true or false *simpliciter*. As Lotze writes:

We are all convinced in the moment in which we think the content of any truth, that we have not created it for the first time but merely acknowledged it. It was valid before we thought about it and will continue so without regard to any existent of any kind, whether things or us, and whether or not it ever finds application in the actuality of existence, or becomes an object of cognition in the actuality of being thought. This is what we all believe with regard to truth when we set out to search for it, and it may be that we lament over its inaccessibility, at least to any form of human knowledge; truth which is never apprehended by us is valid no whit less than that small fraction of it which finds its way into our thoughts.

(L §318, 515)

Likewise, since a proposition is either true or false, the content of a proposition has a kind of timeless, aperspectival, subject-independent being: that content *is*, either by being valid or by being invalid. Contents do not "come into being" or "go out of being," for if they did, truths would come into or go out of being, which is excluded by the very nature of

truth. Lotze denies that a genuinely subjective propositional content, one accessible only by one thinker (one sequence of mental representational events), is even possible:

[I]t is impossible that an individual subject sense or represent something whose content [Inhalt] does not have its determinate place in this universal world of the thinkable [allgemeinen Welt des denkbaren], possess its similarities and differences to others one and for all, but remains a peculiarity of this subject, belonging nowhere else, without relation to the whole world.

(L § 318, 516)

If any thinker thinks about anything, the content of their thought is either true or false, and thus that content has a kind of timeless, subject-independent, aperspectival being. Subjects access these contents; they do not create or generate them. There cannot, even in principle, be "private" content.

The irreducibility of validity to any of the other categories of actuality/being means that truth cannot be defined:

[Validity] has to be regarded as much as [existence] as a basic concept that rests only on itself, of which everyone knows what he means by it, but which cannot be constructed out of any constituent elements which do not already contain it.

(L §316, 513)

Any attempt to define validity would be implicitly circular, for in order to understand it, we would need to deploy our understanding of validity itself. A putative definition of validity would have the form:

(*) p is valid iff F(p).

Lotze's point is that, to understand the content of (*), you must understand the content of its right-hand side. You understand that content only if you understand that F(p) or $\sim F(p)$, that is, if you understand it as a content that is either valid or invalid, whether or not it is asserted, held to be true, etc. So (*) cannot provide you with an understanding of validity that you otherwise lack; in order to understand (*), you must already understand what validity is. When Lotze writes that "everyone knows what he means by [validity]," I take him to mean everyone who can make judgements. There is no such thing as being able to judge that p and then acquiring the capacity to think about one's judgements that they are valid or invalid, because all there is to judging that p is judging that p is valid. All there is to the obtaining of a proposition (what one judges) is its being valid; so in judging the former, one judges the latter. Consequently, Lotze is committed to both sides of this biconditional having the same content:

(†) the proposition that p is valid iff p.

147

When one judges a proposition, one thereby judges it to be valid; there is no gap between judging that *p* and judging that *p* is valid.

Lotze's Platonism

The context of Lotze's fourfold distinction among kinds of actuality/being is his appropriation of Plato. Lotze creatively reads Plato's metaphysics as fundamentally a theory of *truth*. On his reading, Plato's core doctrine is that truth (e.g. the truth about what justice is) is timeless, unchanging, and independent of whether subjects apprehend it. The key role of the theory of Forms, according to Lotze, is to maintain, against the sophists, that the truth about what justice is, is independent of our beliefs, not subject to change, and not sensibly perceptible by us. However, Plato was incorrectly interpreted, including by later members of his own Academy, as asserting that this requires that there be timeless, unchanging, subject-independent "things" that ground these truths—that is, the Forms. Plato's teaching was fundamentally a theory about what we are doing when we judge something to be true, *not* a theory of non-spatio-temporal abstract entities.²⁰

Even on Lotze's reading, however, there are certain divergences between Lotze's theory and Plato's. For one, Lotze reasons *from* truths *to* concepts/Forms: if the proposition "a is F" is valid, then concepts <a> and <F>, the constituents of this truth, must have some kind of timeless being. The exact status of the constituents of propositions (bearers of validity) within Lotze's fourfold division of the modes of actuality/being is somewhat unclear, since, syntactically, they cannot be said to be valid *sensu stricto*. They are valid in the derivative sense that they (atemporally) refer to (*bedeuten*) objects about which there are valid propositions, namely those propositions in which the relevant objects are subsumed under the concepts. Plato, however, emphasized the constituents of truths, that is, the Forms (concepts), over the truths themselves:

[One notices] how comparatively rarely general propositions appear [in Plato's writings]; they are not completely lacking, but constitute in individual cases objects of important discussion; Plato had not realized that they are, in this form as propositions, the essential constituents of the ideal world.

(L §321, 521)

Another difference is that Lotze accepts the simple schema (†) from the previous section, which entails that there will be valid propositions about *everything*, and thus that there will be atemporal concepts (having whatever mode of actuality/being such propositional constituents have)

of everything. Thus, for Lotze, Socrates should not have been perplexed when questioned by the Eleatic stranger about the forms of dirt, hair, etc., in the *Parmenides*.²¹ Since dirt is dirt, it follows that the proposition "Dirt is dirt" is valid, so *a fortiori* <*dirt*> has whatever mode of being/actuality propositional constituents have. The generality of Lotze's semantic theory means he must accept concepts of everything that can be the topic of a valid judgement, given (†), which includes absolutely everything.

The difficult question is how to distinguish Lotze's Platonism from the Platonism he rejects, on which propositions and their constituents are hypostatized as "things." He writes:

For the Greeks that which is not in space *is* not at all, and when Plato banishes the Ideas to this non-spatial home, this is not an attempt to hypostasize their mere validity into any kind of existential being [seiender Wirklichkeit], but rather a clear effort to ward off any such attempt from the outset. [...] Nevertheless although these various utterances point one and all to the fact that Plato only ever asserted the eternal validity of Ideas, but never their existence [Sein], he still had no better answer to give to the question, what then are they, than to bring them again under the general concept of ousia; thus was opened a door to a misunderstanding, which has since been propagated further, although one never knew how to say, on the hypothesis that blames him for this, exactly what it is that Plato is supposed to have hypostasized his Ideas into.

(L §318, 516)

The hypostatic Platonist takes propositions and their constituents (Forms/ concepts) to fall under the first mode of actuality/being: they exist as things, albeit as non-spatio-temporal things. This is informative as a characterization of hypostatic Platonism only to the extent that we understand the first mode of actuality/being: existence. But the trouble is that Lotze frequently characterizes this mode in terms of its causal efficacy and spatial location. Further, he explicitly associates it with the ontological category of things. Since the hypostatic Platonist clearly does not think that propositions and concepts are spatio-temporal or causally efficacious, we need a more general characterization of the existence-validity distinction. In other words, we need a more precise characterization of what it would mean to call proposition or concepts *things*.

One tempting option would be to interpret Lotze's characterization of the first mode of actuality/being as existence in light of Frege's quantificational theory of existence and characterize hypostatic Platonism as what I will call "ontological Platonism" (OP): there are propositions.

On this reading, Lotze fails to be a hypostatic Platonist because he is not ontologically committed to propositions; they are not in his inventory of "what there is." Admittedly, much of Lotze's discussion of validity seems to "quantify over" propositions, though perhaps this apparent quantification can be paraphrased away. On this reading, Lotze's "object language" claims about propositions need to be read as "meta-level" claims about the logical grammar of various terms. For instance, it was confusing for Lotze to say that propositions are either true or false, timelessly and aperspectivally. This point would better have been stated as follows: "is true" cannot be supplemented by a reference to time, speaker, etc. This ontologically conservative Lotze could more perspicuously have expressed his core semantic doctrines by saying that you have not specified the content of the judgement that p unless you have specified it so fully that it is true or false that p timelessly, nonperspectivally, independently of position, and independently of whether any subject judges that p.

If this is the correct reading of Lotze's non-hypostatic Platonism, it marks a clear difference between Lotze and the mature Frege, from roughly 1892 (the year "Über Sinn und Bedeutung" was published) onwards. Frege held that thoughts are the senses (*Sinne*) of complete sentences, but that in indirect discourse (e.g. in belief attributions), expressions refer (*bedeuten*) to the senses they express in direct discourse. For instance, consider these two sentences:

- 1 One can reach India directly by sailing due west from Spain.
- 2 Columbus believed that one can reach India directly by sailing due west from Spain.²²

In (2), the sentence "One can reach India directly by sailing due west from Spain" refers to the sense it expresses in (1). Since it expresses a thought in (1), namely, the thought that one can reach India directly by sailing due west from Spain, in (2) it refers to that same thought. To get from the idea that thoughts can be the referents (*Bedeutungen*) of expressions to the idea that thoughts exist, we need an additional piece of Frege's doctrine, his purely logical conception of an object:

When we have thus admitted objects without restriction as arguments and values of functions, the question arises, what it is that is here being called an object [Gegenstand]. I regard a scholastically correct [schülgemäße] definition as impossible, since we have here something that, because of its logical simplicity, does not admit of a logical analysis. It is only possible to indicate what is meant. Here I

can only say briefly: an object is anything that is not a function, whose expression therefore has no empty place.

 $(Frege 1891, 134)^{23}$

Any expression that does not contain an argument place, which is not "unsaturated" (*ungesättigt*), refers to (*bedeutet*) an object. The *that* clause in (2) has no argument place; it is fully saturated, so it refers to an object. Though it may sound odd to say that thoughts are *objects*, this is a direct consequence of Frege's logical conception of an object and his view of indirect discourse. Given that thoughts are objects, the existence of thoughts is entailed by Frege's view that "Thoughts exist" is equivalent to "There are thoughts." That there are thoughts means simply that there is an argument, an object, relative to which the function *x* is a thought has the value True. ²⁴ Since there are thoughts, and thoughts are objects, there is such an object, and so thoughts exist.

Lotze and Frege agree that whether it is valid (true) that *p* has nothing to do with the psychological acts by which thinkers grasp (or fail to grasp) whether *p*. They agree that logic studies the laws that govern the contents of acts of judging, not those acts themselves. But this reading locates the difference between them in their ontologies (as that term has come to be used after Quine): Frege accepts OP, but Lotze rejects it. In the next two sections, I will argue that the difference between Frege and Lotze is more complex and subtler than this.

Two Perspectives on Frege's Platonism

Although the "ontological" interpretation makes for a clean account of the difference between hypostatic and non-hypostatic Platonism, there are reasons to be dissatisfied. For one, Lotze shows no reservations about "quantifying over" propositions. He says, for instance:

All representable contents stand in fixed and unalterable relations, and however arbitrarily or accidentally our attention moves from one to the other, and in whatever order one after the other is brought to our awareness, prompted by we know not what, we will always find them in the same relations in which the infinitely and objectively (sachlich) multifaceted articulation of the world of ideas (Ideenwelt) is given once and for all.

 $(L \S 346, 572-3)$

²³ All translations from Frege are my own, though I have consulted Beaney's translation in Frege (1997).

²⁴ See Frege (1891), 138-9; (1892b), 173; cf. (1884), §53.

Admittedly, it is always tricky to determine the ontological commitments of statements in ordinary language, especially before Frege's introduction of the quantificational theory of existence and the quantificational notion of an object. But to the extent that Lotze's text gives us any guidance on whether he would be willing to countenance propositions (and their constituents) in his account of "what there is," it gives little comfort to the non-ontological reading of his Platonism.

I want to propose that the difference between Lotze's Platonism and hypostatic Platonism is not ontological, that is, it is not a difference about whether there are propositions, but meta-ontological, that is, it is a difference about *what it is* for there to be propositions. To articulate this meta-ontological reading of Lotze's Platonism, I am going to draw on a reading of Frege developed by Thomas Ricketts and Erich Reck.²⁵ While I will remain neutral as to whether their reading is correct, I will argue that Ricketts and Reck have (unintentionally) given a quite perceptive characterization of Lotze, in particular, the nature of his nonhypostatic Platonism.

Given our focus on Platonism, perhaps the best way to explore the Ricketts-Reck reading is via Reck's (2005) distinction between two kinds of Platonism about numbers, which he calls Platonism A and Platonism B.²⁶ Reck's distinction is ultimately a distinction between two ways of understanding the objectivity of numbers and truths about them. Platonism A understands objectivity in metaphysical terms.²⁷ It takes the notion of *object* to be basic, as well as the notion that an object and its determinate properties are metaphysically independent of other objects and facts. Platonism A holds that numbers exist as objects and have determinate properties independently of the judgements that we make about them. Judgements about numbers are objective, according to the A-Platonist, when they succeed in corresponding with, or "matching," the metaphysically objective properties of numbers.

The B-Platonist, by contrast, begins with a conception of objective judgement, understood not as judgement that corresponds to or matches some metaphysically independent standard (as the A-Platonist does), but as obeying the logical laws internal to judgement itself. For the B-Platonist, the objective existence of numbers is derivative of objective judgement: to say that numbers exist objectively is just to say that the existence of numbers follows from the laws of logic. The objectivity of the laws of logic is explanatorily primitive. The B-Platonist might offer

²⁵ See Ricketts (1986) and (1996); Reck (1997), (2005), and especially (2007). There are differences in their readings, but I will not focus on them here.

²⁶ Reck (1997) characterizes it as the distinction between "metaphysical" and "contextual" Platonism.

²⁷ I use "metaphysical" where Ricketts and Reck tend to use "ontological," for I want to reserve the latter for its post-Quinean meaning of "what there is."

some arguments in favour of a particular regimentation of these laws, or why we cannot do without them in reasoning, but no explanation can be given of *why* they are objective (except by deriving them from more basic laws of logic).²⁸

It is crucial for our purposes to understand why Platonism B, according to Reck, is not merely a form of psychologism. The core of idea of Platonism B is that *judgement* is primary. ²⁹ Platonism B does not reject psychologism on the grounds that mental states and abstract propositional contents belong to two different metaphysical categories, where these categories are assumed to be intelligible independently of judgement. Psychologism is false, according to the B-Platonist, because the act of judging is not reducible to the enjoying of a mental episode (much less to the occurrence of a neural event). 30 From this perspective, Platonism A is equally misguided because, having accepted a realm of metaphysically distinct abstract objects, perhaps including propositions (thoughts, contents of judgements), we are no closer to understanding what it is to judge about them. Judging must be taken as explanatorily primitive, and once it is, the abstract objects of Platonism A are an ontological "free lunch": the existence of these objects follows from the laws of objective judging, the laws of logic (assuming that Frege's logicist programme in arithmetic succeeds). Platonism A most naturally goes with a "correspondence" conception of truth, on which truth is a substantive property of a proposition, namely the property of corresponding to reality. Platonism B, however, has no need for any substantive theory of truth. The objectivity or truth of judgement is not a property of a judgement, according to the B-Platonist, for to judge that some proposition p is true just is to judge that p. There is no difference in the content of these judgements. 31 Thus, according to the B-Platonist, once we take on board this conception of judgement, we get notion of objectivity/truth, as well as the existence of numbers, "for free."

Although Ricketts and Reck put a fair amount of weight on a correspondence theory of truth as marking the difference between Platonism A and Platonism B, I do not think it is so important, for one can combine deflationism about truth with whatever metaphysics one likes, including hypostatic Platonism.³² I think a more significant difference between Platonism A and Platonism B is their different responses to the question

²⁸ Cf. Frege (1893), xvii.

²⁹ This comes out most clearly in Ricketts (1986) and Reck (2007).

³⁰ This point is emphasized in Ricketts (1986), section 1.

³¹ See Frege (1918–19), 345; (1969), 271–2.

³² As Reck acknowledges in (2007), 6. However, Ricketts and Reck are probably correct in one direction of entailment: the "judgement-centric" metaphysics they attribute to Frege requires a minimalist view of truth on which the truth predicate adds nothing to the content of a judgement.

of our epistemic access to numbers. For the A-Platonist, there is a metaphysical gap between our judgements and the numbers we judge about, and this generates the well-known epistemic problem of how we overcome this gap and obtain knowledge of metaphysically independent and causally inert abstract objects like numbers. 33 My point is not that this is a devastating objection to Platonism A, but that, given Platonism A, it is a substantive question how we can have epistemic access to numbers. For the B-Platonist, however, the explanation of our epistemic access to numbers is very different: the laws of logic are the internal laws of judging itself, and being able to judge involves at least an implicit grasp of the laws of logic, so once we appropriately systematize this logic and define all arithmetic notions in purely logical terms, we can prove the existence of numbers using logic alone (assuming, once again, that Frege's logicist programme is successful). Because the B-Platonist takes judgement, rather than a metaphysical notion of objectivity as mindindependence, to be basic, the question of how we know that numbers exist is a very different question for him than for the A-Platonist. The B-Platonist does not need to overcome a metaphysical gap between our arithmetical judgements and the numerical objects they are about, nor does he have to concern himself with the sceptical objection that we would continue to reason as we do even if the causally isolated "external" world of numbers did not exist. The only thing the B-Platonist needs to concern himself with are issues internal to judgement itself, in particular, the internal consistency of the system of logic in which he reconstructs arithmetic. 34, 35

Lotze's Platonism: Ontological Commitment without Hypostasis?

It is not my intention to enter the lists in favour of reading Frege as an A-Platonist or a B-Platonist, but simply to argue that Lotze is a B-Platonist. Reck originally formulated his distinction between two kinds

- 33 See Benacerraf (1973) for an influential modern formulation of the access problem.
- 34 Historically, of course, this was what proved fatal to Frege's logicist programme in arithmetic. Ricketts and Reck read Frege's deep concern with the consistency of his logical system, and comparative lack of concern with our epistemic access to logic, as evidence that he endorses Platonism B rather than Platonism A.
- 35 Some readers might object that Reck's characterization of Platonism A and Platonism B in fact marks a different distinction: that between non-logicism (Platonism A) and logicism (Platonism B) about arithmetic. This is not quite accurate, however, for Reck's difference emerges even if we assume that logicism is correct. Assuming that arithmetic does reduce to logic, the A-Platonist has an explanatory burden to discharge that the B-Platonist does not: how can we, on the concrete side of the concrete-abstract divide, come to know the abstract logical objects that (assuming logicism) are the numbers?

of Platonism in terms of their views about numbers, but Lotze is not a logicist about arithmetic, ³⁶ so I will argue that Lotze believes about propositions (contents of judgements) what Reck's B-Platonist believes about numbers.

First of all, Lotze, like Reck's B-Platonist, rejects the view that truth involves the correspondence of our thoughts to something external: "Nothing other than the connection of [the contents of] our representations among themselves can be the object of our investigation" in logic (L §304, 491); the measure of truth is not the "external world," to which our thoughts are to be compared, but whether a thought agrees with the "necessity of our thinking about all relations of the manifold whatsoever" (L §306, 493–4); the truth of logical laws is "independent of the relation of our cognition to an object beyond it" (L §311, 502). Even Plato is described as realizing "the truth which our world of [contents of] representations has within itself and independently of its agreement with the presupposed essence of things beyond it" (L §313, 506–7). As my bracketed insertions indicate, Lotze is not always as careful as he should be in distinguishing our representations (Vorstellungen) from their contents; read charitably, however, and in light of his antipsychologist doctrines, all of these claims are about contents (propositions), not about mental events or processes. Lotze holds that logic is not about the correspondence of our representations with something external to them, but with the agreement of the content of those representations with the logical laws governing all judgemental content as such. Recall Lotze's claim that validity "cannot be constructed out of any constituent elements which do not already contain it" (L §316, 513). In particular, therefore, validity/truth cannot be defined as correspondence.

What is more telling in favour of reading Lotze as a B-Platonist is his response to scepticism about logic. For the A-Platonist, logical laws concern inferential relations among abstract propositions, where propositions are taken to be metaphysically independent of our judgements about them. This generates a problem about our epistemic access to these laws. Reck's B-Platonist explains our epistemic access to logic in very different terms: logical laws articulate the relations of inference among (contents of) objective judgements, and the objectivity of judgement is explanatorily basic. The B-Platonist explains our grasp of logical laws as the articulation of a primitive capacity to recognize relations of inconsistency and entailment among judgements. Possession of this capacity is internal to the faculty of reason (the faculty of being able to make judgements in the first place); no subject can be said to be judging who does not understand that *p* and ~*p* cannot both be true. The B-Platonist has no need to explain how our judgements succeed in "matching" or

³⁶ Lotze's views about mathematics are hard to determine, but I take him to be a non-standard kind of Kantian about arithmetic: propositions like 7 + 5 = 12 are analytic, but we require *a priori* intuition to be given their objects. See *L* §353, 586–7.

"corresponding" to a metaphysically independent structure holding among metaphysically objective entities like propositions.³⁷

This provides further evidence that Lotze is a B-Platonist. Lotze's famous discussion of validity in Book III, Chapter 2 of Logik continues his discussion in Chapter 1 of scepticism about logic. 38 The point of his distinction between validity and existence is to secure logic from scepticism by showing that the validity of our judgements does not require, and is thus not vulnerable to sceptical doubts concerning, a world of things existing "external" to judgement. Judgement does need to match some external standard in order to be valid but must merely obey its own internal laws of validity. Plato is again invoked as someone who precisely denied that judgement, including judgements in logic, must correspond to a world of entities beyond thought, and the sceptical consequences that this (according to Lotze) would entail. We once again see Lotze making exactly the argumentative moves described by Reck as Platonism B: there is no problem of epistemic access across a metaphysical divide, for logic merely articulates the internal laws of valid judgement itself.

Further evidence for reading Lotze as a B-Platonist comes from the difference between his responses to scepticism about logic and to scepticism about the principles of "pure mechanics," such as the legitimacy of inductive inference, or the principle that every event has a cause. Lotze's response to global scepticism about truth is that such scepticism is self-undermining. To articulate the sceptical position—indeed to articulate any position whatsoever—one must judge, and in making any judgement, one is judging that its content is true. Thus, articulating any position commits one to accepting that there are true judgeable contents, that is, propositions. ³⁹ By contrast, Lotze admits that the denial of the causal principle or the systematic falsity of induction is consistently thinkable; there is nothing self-undermining or inconsistent about denying that all events have causes or that the future will resemble the past. 40 Instead, Lotze pursues a broadly Kantian response to scepticism about these principles, which, again, following Kant, he accords the status of synthetic a priori principles of experience: experience of existing things in space is impossible unless we assume these principles.⁴¹ The reason for this distinction is that logical principles concern the domain of validity, contents of judgements, while these a priori principles of experience

³⁷ Ricketts has more to say about Frege's epistemology of logic than Reck; see Ricketts (1986), 73, 83. Aside from the question of whether they have interpreted Frege correctly, I worry that this is a key point on which Platonism B is not more philosophically attractive than Platonism A. In particular, more would need to be said about how this epistemology of logic could be articulated without devolving into psychologism or idealism.

³⁸ L §313, 506-7.

³⁹ L §303, 489; §304, 491; §309, 498–99; §311, 502; §315, 508.

⁴⁰ L §349, 578.

⁴¹ L §349, 579; §350, 581; §351, 583; §356, 591.

concern the domain of *existence*, things that exist "external" to judgement. Since there is no valid path from principles of validity to principles of existence, Lotze's response to logical scepticism does not answer the sceptic about the principles governing the existence of objects. Lotze's adoption of two different anti-sceptical strategies for logic and for judgements about existent things in space and time shows that he accords propositions and ordinary objects very different metaphysical statuses. In particular, it provides further evidence that his metaphysics of propositions is not that of Platonism A—on which answering the sceptical objection is a matter of securing epistemic access across a metaphysical divide—but that of Platonism B, on which answering the sceptical question is simply a matter of articulating in a consistent fashion the internal laws that govern the validity of judgement.

Where does this leave us with our original question about the difference between hypostatic Platonism and Lotze's Platonism? I think they correspond quite closely to Reck's Platonism A and Platonism B, respectively. The A-Platonist understands the objectivity of propositions in metaphysical terms as their existing mind-independently. Our beliefs must then, somehow, be brought into conformity with them. From the point of view of the B-Platonist, the A-Platonist "hypostasizes" propositions and their constituents. The B-Platonist does not accept that judgemental contents, that is, propositions, are sequences of representations—much less that they are physical events in our brains and bodies—but does not hypostasize them.

Explaining why the B-Platonist does not hypostasize propositions will also explain how Lotze can be a non-hypostatic Platonist while accepting that there are propositions (OP from $\S 3$). Recall that the B-Platonist holds that the judgements p and "It is valid that p" have the same content. Thus, the following biconditional is trivially true (both sides have the same content):

1 p iff the proposition that p is valid.

From this, it follows by logic alone that:

2 $(p \text{ or } \sim p)$ iff the proposition that p is valid or invalid.

Assuming that it is a basic law of logic that propositions are either valid or invalid, it follows that:

3 p or $\sim p$ iff there is a proposition that p.

Since the left-hand side is a law of logic, this shows that the B-Platonist can derive that there are propositions (OP) from purely logical principles plus

a trivial principle, (1), that asserts a biconditional between one and the same content under two guises (*p* and "the proposition that *p* is valid"). This means the fact that there are propositions is not a fact "over and above" the laws of logic; rather, it is a trivial consequence of the laws of logic themselves. Since the B-Platonist takes the laws of logic to be the internal laws of judging itself rather than laws that describe some external world of abstract objects, this means that it is internal to judging itself that there are propositions. In the terms introduced in the section "Lotze's Platonism," this means that the B-Platonist is also an *ontological* Platonist.

If we read Lotze's non-hypostatic Platonism as Platonism B, as I have argued we should, then he is an ontological Platonist about propositions. What then becomes of his foundational distinction between the validity of propositions and the existence of things, if he is admitting that there are propositions? The category of existence should not, I think, be identified with the category of what there is (existence in Frege's quantificational sense). Recall that Lotze consistently identifies existence (Dasein), the first category of actuality, as the existence of things (Dinge). Hypostatic Platonism is consistently characterized as the view that takes propositions and concepts to be existent things, thus transferring them into the category of existence. I propose that we read Lotze's category of the existent, of things, not as "what there is" but as that which is external to judgement in the specific sense that there being such things does not follow from the internal logical rules of judging itself. Lotze denies that there is a purely logical proof that there is a mind-independent world in space and time, or that there are causes for every effect; consequently, these objects are "existent things" in Lotze's technical sense, and skepticism about them must receive a different answer than logical skepticism. The "externality" of things is not their distinctness from our representations (for propositions are distinct from our representations, but are not things); rather, it is their being "external" to logic, that is, their not following from logic alone. This allows Lotze to consistently maintain that there are propositions while denying that they exist, that they are external, and that they are things. The hypostatic Platonist, on this reading, is not the theorist who holds merely that there are propositions, but the theorist who thinks that there being such propositions is a fact over and above the laws of logic. The hypostatic Platonist is the theorist who thinks that there is no purely logical proof (like (1)–(3) earlier) that there are propositions, and thus that there is a substantive question of our epistemic access to their existence.⁴³

⁴³ I would like to thank Fred Beiser, Emily Carson, Michael Forster, Consuelo Preti, Graham Priest, Erich Reck, Jamie Tappenden, and Clinton Tolley, as well as audiences at the 2016 "Logic in Kant's Wake" workshop at McMaster University and at the 2017 meeting of the Canadian Philosophical Association in Toronto, for their responses to earlier versions of this chapter. Special thanks are due to Sandra Lapointe

Primary Texts by Lotze and Frege

Frege, G. (1884). Die Grundlagen der Arithmetik, eine logisch mathematische Untersuchung über dem Begriff der Zahl. Breslau: W. Koebner. Repr. (2013). Hildesheim: Georg Olms. Cited by section number.

Frege, G. (1891). Funktion und Begriff. Jena: Hermann Pohle. Cited by page numbers in Frege (1990).

Frege, G. (1892*a*). "Über Sinn und Bedeutung." *Zeitschrift für Philosophie und philosophische Kritik* 100: 25–50. Cited by page numbers in Frege (1990).

Frege, G. (1892b). "Über Begriff und Gegenstand." Vierteljahrsschrift für wissenschaftliche Philosophie 16: 192–205. Cited by the page numbers in Frege (1990).

Frege, G. (1893). Grundgesetze der Arithmetik, Bd 1. Jena: H. Pohle.

Frege, G. (1918-19). "Der Gedanke." Cited by page numbers in Frege (1990).

Frege, G. (1990). Kleine Schriften. I. Angelelli (Ed.). Hildesheim: Georg Olms.

Frege, G. (1997). The Frege Reader. M. Beaney (Ed.). Oxford: Blackwell.

Lotze, H. (1843). Logik. Leipzig: Weidmann'sche Buchhandlung.

Lotze, H. (1874). System der Philosophie I: Drei Bücher der Logik. S. Hirzel: Leipzig.

Lotze, H. (1884). Logic in Three Books: Of Thought, Of Investigation, and Of Knowledge. B. Bosanquet (Ed.). Oxford: Clarendon Press.

Lotze, H. (1989a). Logik. Erstes Buch. Vom Denken. G. Gabriel (Ed.). Hamburg: Felix Meiner.

Lotze, H. (1989b). Logik. Drittes Buch. Vom Erkennen. G. Gabriel (Ed.). Hamburg: Felix Meiner. Cited by section number (§) and page number in Lotze (1880).

Works Cited

Beiser, F. (2013). Late German Idealism: Trendelenburg and Lotze. Oxford: Oxford University Press.

Benacerraf, P. (1973). "Mathematical Truth." *The Journal of Philosophy* 70(19): 661–79.

Bauch, B. (1918–19). "Lotzes Logik und ihre Bedeutung im deutschen Idealismus." Beiträge zur Philosophie des deutschen Idealismus 1: 45–58.

Dahlstrom, D. (1994). *Heidegger's Concept of Truth*. Cambridge: Cambridge University Press.

Dummett, M. (1973). Frege: Philosophy of Language. London: Duckworth.

Dummett, M. (1976). "Frege as a Realist." *Inquiry* 19: 455–92.

Dummett (1981a). *The Interpretation of Frege's Philosophy*. Cambridge, MA: Harvard University Press.

Dummett, M. (1981b). "Frege's 'Kernsätze zur Logik'." Inquiry 24: 439-54.

Dummett, M. (1982). "Objectivity and Reality in Lotze and Frege." *Inquiry* 25: 95–114.

for detailed comments on the penultimate draft, as well as for constant encouragement, nearly infinite patience, and world-famous hospitality. Thanks also to Ian Drummond for some very acute copy-editing of the penultimate version.

- Gabriel, G. (1986). "Frege als Neukantianer." Kant-Studien 77: 84-101.
- Gabriel, G. (1996). "Frege's Epistemology in Disguise." In *Frege: Importance and Legacy*. M. Schirn (Ed.). Berlin and New York: De Gruyter, 330–46.
- Gabriel, G. (1998). "Leo Sachse, Herbart, Frege, und die Grundlagen der Arithmetik." In *Frege in Jena: Beiträge zur Spurensuche*. G. Gabriel & W. Kienzle (Ed.). Würzburg: Königshauses & Neumann, 53–67.
- Gabriel, G. (2002). "Frege, Lotze, and the Continental Roots of Early Analytic Philosophy." In *From Frege to Wittgenstein: Perspectives on Early Analytic Philosophy*. E. Reck (Ed.). Oxford: Oxford University Press.
- Glock, H.J. (2015). "Neo-Kantianism and Analytic Philosophy." In New Approaches to Neo-Kantianism. N. De Warren & A. Staiti (Eds.). Cambridge: Cambridge University Press, 59–81.
- Kant, I. (1992). Theoretical Philosophy: 1755–1770. R. Meerbote & D. Walford (Trans. and Ed.). Cambridge: Cambridge University Press.
- Reck, E. (1997). "Frege's Influence on Wittgenstein: Reversing Metaphysics via the Context Principle." In *Early Analytic Philosophy: Frege, Russell, Wittgenstein*. W.W. Tait (Ed.). Chicago, IL: Open Court, 123–185.
- Reck, E. (2005). "Frege on Numbers: Beyond the Platonist Picture." *The Harvard Review of Philosophy* 13: 25–40.
- Reck, E. (2007). "Frege on Truth, Judgment, and Objectivity." *Grazer Philosophische Studien* 75(1): 149–73.
- Ricketts, T. (1986). "Objectivity and Objecthood: Frege's Metaphysics of Judgments." In *Frege Synthesized*. L. Haaparanta & J. Hintikka (Eds.). Dordrecht: Reidel, 65–95.
- Ricketts, T. (1996). "Frege on Logic and Truth." *Proceedings of the Aristotelian Society* 70: 121–140.
- Rödl, S. (2012). Categories of the Temporal. Cambridge, MA: Harvard University Press.
- Sluga, H. (1975). "Frege and the Rise of Analytic Philosophy." *Inquiry* 18: 471–98.
- Sluga, H. (1976). "Frege as a Rationalist." In Studies on Frege, Vol. 1: Logic and Philosophy of Mathematics. M. Schirn (Ed.). Stuttgart-Bad Constatt: Friedrich Formmann Verlag.
- Sluga, H. (1977). "Frege's Alleged Realism." Inquiry 20: 227-42.
- Sluga, H. (1980). Gottlob Frege. New York: Routledge.
- Weiner, J. (1990). Frege in Perspective. Ithaca, NY: Cornell University Press.