

F.A. Trendelenburg and the Neglected Alternative

Andy Specht

In his landmark study of neo-Kantianism, Klaus Köhnke begins by telling us that in the history of nineteenth century philosophy, '*es gibt einen großen Unbekannten*' ['there is a great unknown'] (Köhnke, *Neukantianismus*, 23). This unknown is Friedrich Adolf Trendelenburg, the philosopher who was a direct influence on Franz Brentano, Hermann Cohen, Wilhelm Dilthey, Rudolf Eucken, and even Søren Kierkegaard. However in light of recent work, including Köhnke's, Trendelenburg has begun to reemerge as a great figure in nineteenth century philosophy.¹ Among Kant scholars, Trendelenburg has always been remembered for his feud with Kuno Fischer over the subjectivity of space and time in Kant's philosophy. This surprisingly acrimonious feud generated works with titles like 'Anti-Trendelenburg', and the issues involved in the dispute were taken up and further considered by the newly forming neo-Kantian movements.

The topic of the dispute, now most commonly referred to as the 'Neglected Alternative' objection, has become a prominent issue in contemporary discussions and interpretations of Kant's view of space and time.² Roughly, the Neglected Alternative contends that Kant unjustifiably moves from the claim that we have a priori intuitions of space and time to what should be viewed as a sceptical conclusion – that space and time are *only* features of human sensibility and have nothing whatsoever to do with any subject-independent things in themselves. Most current discussions trace the objection back to Trendelenburg and often use him to motivate the objection.³ However, to date

1 In addition to Köhnke's neo-Kantianism book, see Hartung and Köhnke, eds. *Friedrich Adolf Trendelenburgs Wirkung* and Beiser, *Late German Idealism*.

2 Henry Allison revived the debate over the objection with his article 'The Non-Spatiality of Things in Themselves for Kant'. The debate shows no sign of letting up; since 2007 alone, there have been at least three articles providing new defences of Kant against the Neglected Alternative and two articles reinforcing the Neglected Alternative against Kant. In favour of Kant, see Graham Bird's 'Trendelenburg, Fischer and Kant', Desmond Hogan's 'Three Kinds of Rationalism', and Tobias Rosefeldt's 'Subject-Dependence and Trendelenburg's Gap'. In support of the Neglected Alternative objection, see Peter Herissone-Kelly's 'The Transcendental Ideality of Space and the Neglected Alternative' and Edward Kanterian's 'Trendelenburg Versus Kant, Fischer and Bird'.

3 The objection ultimately originates in the early reception to the Critical philosophy in the 1780s. Of the philosophers in this time period, H.A. Pistorius developed the most thorough formulation

Trendelenburg's actual arguments and his reasons for rejecting the Kantian view of space and time have not been sufficiently uncovered; my goal here is to fill this lacuna. This task is primarily exegetical, but it involves compiling and synthesizing Trendelenburg's arguments across his corpus. I hope that this in turn accomplishes two specific goals. First, by better understanding what Trendelenburg, who more than any other philosopher has developed and advocated the Neglected Alternative, actually argued, we will be in a better position to assess whether the Neglected Alternative objection against Kant is successful. But in addition, Trendelenburg's own system is of independent philosophical interest, and my work here will shed light on one part of it.

In the first section, I will begin by presenting Trendelenburg's Neglected Alternative objection, as it is formulated in his *Logische Untersuchungen*, and in the second section we will then briefly discuss some of Kuno Fischer's criticisms of Trendelenburg's objection. In the third section, we will look beyond the *Logische Untersuchungen* to further refine Trendelenburg's objection; ultimately we will develop two possible interpretations of the objection. In the fourth section, we will very briefly look back to the *Critique of Pure Reason* for a preliminary assessment of the extent to which Trendelenburg's objection succeeds in finding a target. In the fifth section, we will wrap up various issues surrounding our understanding of the alternative view of space that Trendelenburg endorses. The final evaluation of whether Trendelenburg's objections to Kant are successful will remain for future work.

I. The *Logische Untersuchungen*: Trendelenburg's First Formulation of the Neglected Alternative

Trendelenburg's philosophical system is laid out in his two volume *Logische Untersuchungen*. Originally published as a nearly 700 page tome in 1840, it was revised and expanded in 1862 and 1870, eventually reaching over 900 pages. In this work, Trendelenburg endeavours to create a system of 'fundamental philosophy', or a 'foundational science', which would

of the Neglected Alternative in his various reviews. See especially his 'Erläuterung über...'

provide a basis for all particular sciences (*Logische Untersuchungen* (Vol. 1, 1862), 14).⁴ It is important to emphasize, however, that although Trendelenburg's goal is to unify and find a foundation for the sciences, he has no intention of rebuilding them from the ground up or revising them in any significant way. He takes particular sciences as giving us secure results, and the task of philosophy is to find the underlying logic and metaphysics of these sciences, resolve disputes between the sciences, and ultimately show how they are unified (see Beiser, *Late German Idealism*, 28-31 and Köhnke, *Neukantianismus*, 35-8). Trendelenburg further holds that knowledge is only possible through the unification of thought and being; this conception of knowledge expresses the idea that knowledge is about the world that exists independently of our minds, but for the mind to grasp this world, there must be some common element found in both mind and world. Especially in light of the organic world view that he goes on to develop, Trendelenburg's philosophy echoes Schelling's dictum that 'Nature should be mind made visible, mind the invisible nature' (*Ideen zu einer Philosophie der Natur*, 56). Accordingly, the central task of Trendelenburg's system is to explain how in general the unification of thought and being can occur (*LU*, 11-12; 135-6.).

In the second and third chapters of his *Logische Untersuchungen*, Trendelenburg discusses two methods that he argues have been failures at grounding foundational science. The first method is what Trendelenburg calls 'pure formal logic', and the second method is the dialectical method. He describes formal logic as 'want[ing] to grasp the forms of thought in and for themselves, without inspecting the content in which these forms appear. It wants to understand the concept, the judgement, and the inference based alone on the activity of thought as it relates to itself' (*LU*, 16). Trendelenburg explicitly identifies himself as primarily engaging with two philosophers, who advocate formal logic: August Twisten, a follower of Schleiermacher, and Moritz Wilhelm Drobisch, a follower of Johann Herbart.⁵ The upshot for Trendelenburg is that the systems of formal

4 Hereafter, I will abbreviate references to this work with '*LU*, page number'. I cite the 1862 edition, since it is the one that sparked the dispute over the Neglected Alternative and the additions in the 1870 edition do not concern the issues we will discuss. All translations of German texts (excepting Kant) are my own. On Kant texts and translations, see note 9.

5 Herbart himself appears in the *Logische Untersuchungen* as an essential philosopher for

logic presented by these philosophers do not provide an adequate basis for first philosophy, because they raise metaphysical questions that they do not provide the resources to address and that must be addressed by first philosophy (*LU*, 35). For example, they rely on the concept of negation but do not provide an adequate explanation of what negation really is. More generally, philosophical systems of formal logic lack the resources to investigate the origins of their concepts (*LU*, 24-6). Thus, formal logic must either be abandoned or supplemented, if we are to establish a system of first philosophy (see Risto Vilkkio's 'Trendelenburgs Kritik der Herbartschen Logik' and Stephan Käufer, 'Hegel to Frege', 270-77).

In the next chapter, which spans nearly a hundred pages in the second edition, Trendelenburg argues that dialectic cannot provide an appropriate foundation for philosophy either. His primary target is Hegel himself, though he also critiques a number of other Hegelians in some detail. The most notorious of these criticisms is the harsh line by line refutation of Kuno Fischer's dialectic, added in the second edition, which was the main catalyst of the *Streit* between Fischer and Trendelenburg that will be discussed shortly. One important thread in his criticism of dialectic is that the sorts of progressions through concepts like 'Being', 'Negation', and 'Becoming', which are endorsed as presuppositionless by the dialectical philosophers, have at least one important presupposition: the existence of motion (see Hans-Jürgen Lachmann's 'Über den Anfang der Logik und die Logik des Anfangs'). After rejecting both formal logic and dialectic, Trendelenburg goes on to hypothesize that motion [*Bewegung*] is the fundamental force that unites thought and being, and he therefore makes motion the starting point of his philosophy.⁶ Trendelenburg develops his view of motion in the remainder of the first volume of the *Logische Untersuchungen*, and in the second volume the teleological side of motion is elucidated.

Trendelenburg. At the beginning of the work, Trendelenburg characterizes his system as tracing a path through the Hegelian and Herbartian schools (vii). It is also noteworthy that Trendelenburg devotes far more pages in the *Logische Untersuchungen* to discussing Herbart's view of space and time than he spends discussing Kant's view.

⁶ See especially *LU*, 136-40, where Trendelenburg argues that an action or activity (*Thätigkeit*) must be what unites thought and being and *LU*, 141-54 for the argument that this unifying activity is motion.

On Trendelenburg's view, motion exists both in the human mind and in mind-independent reality. Trendelenburg argues for a dynamical view of space and time, where space and time are not considered to be finished products but are instead generated by motion.⁷ The result is that since motion exists both in the human mind and outside of it, motion generates space and time, both as ideal in the human mind through constructive motion and as real through the motion that exists independently of the human mind in reality. Trendelenburg realizes that this straightforwardly contradicts the transcendental idealism founded by Kant and endorsed by many nineteenth century German philosophers. According to transcendental idealism, space and time only have validity for representations of the human subject and have absolutely nothing to do with anything that exists completely independently of human cognition. If Trendelenburg's view of space is accurate, then it is essential that he persuade his reader that transcendental idealism is inaccurate. Trendelenburg's primary attack on transcendental idealism will be the Neglected Alternative objection; he will try to show that Kant's arguments concerning space and time in the *Transcendental Aesthetic* of the *Critique of Pure Reason* do not entail transcendental idealism and are ultimately consistent with his own view on which space and time are both subjective and objective.⁸

However, before looking at Trendelenburg's Neglected Alternative objection, we should consider what exactly Trendelenburg finds objectionable about transcendental idealism – why is he so motivated to develop an alternative view in the first place? The answer is that Trendelenburg believes that transcendental idealism destroys the certainty and necessity of the sciences. This point is most clearly made in a passage where he discusses Kant's philosophy of geometry:

7 He argues further that even if space and time were finished products, motion would be required to give unity to each of them (*LU*, 149).

8 Trendelenburg also objects to Kant's seemingly insufficient and conflicting view of motion. It is insufficient, because Kant fails to show how it is that the a priori intuitions of space and time come together and create motion. But Kant ultimately descends into inconsistency, because in the *Aesthetic*, he is adamant that motion presupposes space and time, but in the *Deduction* he seems to reverse course and argue that motion (in the form of synthesis) underlies our experience of space (*LU*, 165-6).

The Kantian view has been credited for grasping the necessity of geometry that arises from the pure form of intuition as an a priori science. If the certainty of geometry rests on this backing, then it depends on the subject; and if one accepts space as a given form, then this contingently given thing [*zufällige Gabe*] can at some point alter; and nothing contradicts the possibility that other intuiters have other forms; perhaps a space with two or four dimensions is that most beloved to the gods (*LU*, 160).

Immediately after these points, Trendelenburg asserts that the Kantian philosophy makes mathematics and physics subjective, because they become 'nothing but fantasies of our particular intuition' (*LU*, 160).

There are hints of at least two objections in this passage from Trendelenburg. The first objection is that Kant's conception of space is consistent with the possibility of other beings having other forms of intuition, including more sophisticated beings perceiving outer objects in radically different spaces. This sort of relativism about space undermines the necessity and universality of geometry, which becomes just the science of our *particular* kind of space. However, this objection is one to which I think Kant has plausible responses readily available. Kant admits the possibility of other beings with non-spatiotemporal forms of intuition but denies that this in any way poses a problem for his philosophy.⁹ The laws of geometry are laws that concern our form of intuition and are necessary for all human cognizers. In other beings, there may be other forms of intuition and even other forms that order outer objects, but this does not undermine the universality and necessity of geometry. Geometry is universal in that it describes the form in which all humans must experience outer objects. It provides necessary truths because it describes a structure that is an a

9 He raises this possibility in the Transcendental Aesthetic when he says that “we cannot judge at all whether the intuitions of other thinking beings are bound to the same conditions that limit our intuition and that are universally valid for us” (A27/B43; see also B72). In addition, the infinite being, God, certainly does not intuit objects in space and time. (Note: I follow the Guyer and Wood translation of the *Critique of Pure Reason* and employ the standard A/B convention for citing the first and second editions of the *Critique*, respectively).

priori and necessary condition for human experience.¹⁰

But there is another objection suggested in the passage that Kant should find more troubling. It comes from Trendelenburg's claim that on the Kantian view, space depends on the subject, and therefore space is a 'contingently given thing' that 'can at some point alter'. The objection seems to be that by grounding geometrical truths in the human subject, which is something contingent, the necessity of geometrical truths is undermined. There is no guarantee that our constitution could never alter in such a way that we no longer intuit objects in a space with a Euclidean structure; perhaps we could start intuiting outer objects in a two or four dimensional space, or a non-Euclidean space. If this were to occur, then at least some propositions of Euclidean geometry would be false.¹¹ Thus, Kant's account of the source of geometry undermines the necessity of geometry.

When it comes to responding to this objection, Kant has tied his own hands. In reply, he can point out that he has demonstrated that space is an a priori condition for our experience, but he has not demonstrated that it is impossible for a form of intuition (specifically, space) to change or be replaced with another form of intuition. Granted, this change would result in a different kind of experience, but Kant also cannot eliminate the possibility of no longer having the kind of experience in which our form of intuition, space, is essential and instead having a kind in which a different form of intuition is essential. Kant cannot eliminate such a possibility, because for him, claims about the ultimate nature of the subject are off-limits, i.e. he cannot make claims about what the subject in itself must be like (see, for example, A278/B334). Kant acknowledges that the nature of our sensibility has a cause in the world of things in themselves, but we cannot know anything

¹⁰ To put this in the terms of contemporary philosophy, in which necessary truths are usually considered to hold without condition, we can view Kant as holding that geometry has *conditional necessity*, where the condition is the constitution of human sensibility (cf. Falkenstein, *Kant's Intuitionism*, 267-8).

¹¹ That space has a Euclidean structure in particular is not essential to this discussion. What is essential is that geometry is about the structure of space (whatever it may be) and these truths about space are necessary. Kant holds that space has a Euclidean structure, and this is not a point of contention between Kant and Trendelenburg. Thus, I will specifically talk about Euclidean geometry when I need to clarify that I am talking about the laws that govern the actual space grounded in our a priori intuition.

about it, much less its modal properties. Thus, there is no way of ruling out that we, as the transcendently real subjects who underlie our forms of intuition, could someday alter our forms of intuition in a way that falsifies Euclidean geometry.

I think, here, Trendelenburg identifies a significant problem for Kant's view of the sciences. According to both Kant and Trendelenburg, the sciences are supposed to be necessarily true, but Kant's grounding of necessity ends up undermining their necessity. Though Trendelenburg was the first to articulate this issue, very similar objections appeared in attacks on the Kantian philosophy by Bertrand Russell and G.E. Moore in the twentieth century.¹² Trendelenburg's system in the *Logische Untersuchungen* is in part an attempt to provide a foundation for the sciences that is stronger than what Kant is able to give them and this entails bringing the subject-matter of the sciences out of the subject and into mind-independent reality.¹³

Accordingly, Trendelenburg views Kant's characterization of space as something pertaining entirely to the human subject as a sceptical result. He identifies a deep urge to know the thing in itself and says that 'it is the tense nerve [*spannende Nerv*] in all cognition that we want to reach the thing, as it is; we want the thing, not ourselves' (*LU*, 161-2). However, if space and time are just products of the self, then we are trapped in the representations of our own minds. This is where Trendelenburg states the Neglected Alternative objection for the first time. He returns to Kant's *Metaphysical Expositions* and considers them in order. For each Exposition, he argues that it does not warrant the conclusion that space is exclusively subjective. For example, he looks at the first Exposition and concedes that space and time exist in us a priori antecedent to experience, but in

¹² See Bertrand Russell, *The Problems of Philosophy*, chapter VIII and G.E. Moore, *Some Main Problems of Philosophy*, 154. The objections from Russell and Moore (though not Trendelenburg) are discussed in James Van Cleve, *Problems from Kant*, 37-43. Falkenstein independently considers this kind of objection in his *Kant's Intuitionism*, 267-8.

¹³ In the same section, Trendelenburg presents another challenge to transcendental idealism that directly targets its coherence. He argues that if things in themselves appear to us in space and time, then there must be something in the nature of things in themselves that makes this interaction possible and *a fortiori* this aspect of things in themselves must be spatiotemporal (*LU*, 161). Thus, Kant cannot coherently hold that objects appear to us in space and time without holding that things in themselves are spatiotemporal.

Kant's proof of this 'there nowhere emerges a thought that prevents space and time from being at the same time something outside of human intuition. This exclusive "only" in the claim that space and time are only subjective is not justified' (*LU*, 162). The stories are similar with the other Expositions; after discussing the second Exposition he acknowledges that it shows that space and time are subjective, but he asks 'what prevents them from being objective at the same time?' (*LU*, 162). After reviewing all of the Expositions, he gives the classic statement of the Neglected Alternative:

Even if we accept the arguments that demonstrate that space and time are subjective conditions, which precede perception and experience in us, there is still not a hint of a proof that they could not at the same time be objective forms as well (*LU*, 163).¹⁴

The neglected hypothesis is that space could have something of a dual-nature. It could exist both as an a priori intuition in our minds and as an 'objective form' - a structure that orders the things in themselves, the objects that exist outside of us and independently of us. In addition, Kant's argument not only fails to rule out this possibility, but Kant 'hardly thought of the possibility' (*LU*, 163).

Though this hypothesis is intriguing, it is clearly in need of more development, and Trendelenburg tells us a little bit more about it in the *Logische Untersuchungen*. After reiterating his conception of knowledge as uniting thought and being, this time in terms of a 'harmony' between the two, he says that Kant rules out the possibility of an agreement between space and the things in themselves (*LU*, 163).¹⁵ However, Trendelenburg quickly turns his attention to other issues in

¹⁴ This quotation is also translated in M.J. Scott-Taggart, 'Recent Work on the Philosophy of Kant', 184 and has been reprinted in various recent articles on the Neglected Alternative.

¹⁵ In this context, Trendelenburg usually just uses the term 'the things' [die Dinge] rather than the Kantian 'things in themselves' [Dinge an sich] to refer to the objects that exist absolutely independently of ourselves. Here, I keep with the Kantian terminology in describing Trendelenburg's view. Cf. Kuno Fischer, *Kants Vernunftkritik und deren Entstehung*, vi and C. Grapengiesser, *Kant's Lehre von Raum und Zeit*, 68. See also *LU*, 340 for further discussion of

Kant's view of space and time, like the nature of motion and the problems concerning the infinitude of space and time. This leaves us with at least a couple unanswered exegetical questions: how does Trendelenburg understand the terms 'subjective' and 'objective'? What sort of agreement does Trendelenburg think there may be between space and time and things in themselves? We will have to investigate other sections of the *Logische Untersuchungen* and his subsequent texts for answers. Still, for our purposes, Trendelenburg has made the crucial claim: that there is a logical gap in Kant's argument; specifically, it fails to rule out the alternative that Trendelenburg describes.

II. Kuno Fischer's Counter-attack

Trendelenburg surely did not anticipate it, but his discussion of the Neglected Alternative in the *Logische Untersuchungen* ended up being just the first salvo in a long battle over this objection. Trendelenburg's criticisms of Kant's view of space, which were all present in the first (1840) edition of the *Logische Untersuchungen*, received scant attention until 1865, a few years after the publication of the second edition of this work.¹⁶ This is the year that Kuno Fischer published his *System der Logik und Metaphysik*.¹⁷ Fischer counters the attacks from Trendelenburg by devoting a section to an overview and critical evaluation of Trendelenburg's philosophy, specifically his view of motion and his criticisms of the Kantian view of space and time. The same philosopher whom Trendelenburg belittled as finding contradictions in concepts due to contradictions in his own mind (*LU*, 124) would ultimately lure Trendelenburg into a prolonged debate over the accuracy of his Neglected Alternative objection.

'thing'.

16 This is not to say that the first edition of the *Logische Untersuchungen* as a whole was ignored. According to Klaus Köhnke, Trendelenburg's criticisms of Hegelianism were widely considered to be successful (*Neukantianismus*, 56). For further evidence, see the references in Beiser, *Late German Idealism*, 59n. See also George Morris, 'Vera on Trendelenburg', 93 for the claim that Trendelenburg was the philosopher most responsible for the diminution of Hegel's logic.

17 An updated version of his earlier *Logik und Metaphysik oder Wissenschaftslehre*, the work Trendelenburg criticizes in his second edition of the *Logische Untersuchungen*.

Fischer fires off a number of objections against Trendelenburg, both to his system as a whole and to his Neglected Alternative objection. Here, I will only consider the objections related to the Neglected Alternative. Even so, the debate between Fischer and Trendelenburg quickly balloons into a number of different issues, so to focus our discussion, I will consider just two aspects of Fischer's criticism of Trendelenburg. First, Fischer reconstructs Kant's argument in the Transcendental Aesthetic to demonstrate how Kant is justified in concluding that space is merely an a priori intuition. He sees the argument as proceeding in three stages. First, Kant shows that space is not an acquired representation but is instead 'original' [*ursprünglich*]. Second, he shows that this original representation is an intuition, rather than a concept. Finally, he shows that this intuition of space is just an intuition and is nothing independently of this intuition. This last point is for the reason suggested by Kant in his 'Conclusions from the above Concepts' (A26/B42): if space were something that existed independently of us, our knowledge of it would have to come from experience. This would eliminate the possibility of a priori knowledge of mathematics, which in turn would destroy the necessity and universality of mathematics (*System der Logik und Metaphysik*, 175). Further, Fischer argues that Kant ultimately does hold a view on which space is both subjective and objective. As transcendently ideal, it is subjective, but space also is objective in that it has 'objective validity', which signifies that space has a universal application to appearances (*System der Logik und Metaphysik*, 178).

Fischer also goes on the offensive by attacking the coherence of Trendelenburg's alternative. He begins with a nice summary of Trendelenburg's view:

Motion generates space as an intuition in thought and at the same time it generates space as reality in being. There is, therefore, a space in thought and a space in actuality [*Wirklichkeit*]. Both are independent of each other in their generation, [but] both are similar to each other in their essence. Thus, in a way, space exists in two instances: one in us and

one outside of us (*System der Logik und Metaphysik*, 176).

However, despite the way Trendelenburg conceives of his own alternative, Fischer thinks that the alternative describes a scenario in which there is really only *one* space. The real, mind-independent space is the original, fundamental space, and the space of intuition is merely a copy of the original space and is dependent on the original space. Fischer's point seems to be that if one space is the structure of the real, mind-independent objects, then the space that our minds create through intuition only has validity insofar as it accurately represents the space that orders the real objects. This again raises the problem of pure mathematics. If geometry is about space, and the real space is something that exists independently of us and is not an a priori intuition, then geometry as a necessary and universal science is thrown into doubt, or so Fischer worries.

This objection and Trendelenburg's own view both need to be fleshed out a bit more, before we can judge the significance of this objection for Trendelenburg. Trendelenburg will respond to these points from Fischer and will further develop his view, so a complete evaluation of Trendelenburg will need to wait until we have a fuller picture of his own objection to Kant and his alternative. Since all of the main issues are on the table, it is now the time to begin filling in these details.¹⁸

III. The Possibility of a Space, both Subjective and Objective

We will begin with Trendelenburg's counter-interpretation of Kant. First, in 'Ueber eine Lücke in Kants Beweis von der ausschliessenden Subjectivität des Raumes und der Zeit', Trendelenburg provides his own reconstruction of Kant's argument in the Aesthetic that makes the supposed gap more apparent. I will focus just on the case of space, since for both Kant and

¹⁸ For readers interested in the complete blow-by-blow account of the Trendelenburg/Fischer *Streit*, see Christopher Adair-Toteff, 'The Neo-Kantian *Raum* Controversy'; Beiser, *Late German Idealism*, 107-20; and E. Bratuscheck, 'Kuno Fischer und Trendelenburg'.

Trendelenburg the features of time exactly parallel those of space. Kant is said to argue in this way:

- 1) Space is necessary and universal.
- 2) If space is necessary and universal, then it is a priori.
- 3) If space is a priori, then it is subjective.
- 4) If space is subjective, then it is not also objective.
- 5) So, space is subjective and not objective ('Ueber eine Lücke', 228).

One clear problem with this reconstruction is that this line of argument is nowhere explicitly made in the first *Critique*. In particular, Kant does not directly spell out an account of how space has the property of being subjective and lacks the property of being objective, at least in those specific terms.¹⁹ Therefore, we must first look to Trendelenburg, not Kant, to make any sense of the reconstruction; we can no longer avoid the question: how does Trendelenburg understand the terms 'subjective' and 'objective'?

Trendelenburg most explicitly tries to clarify his conception of the subjective and objective towards the beginning of the 'Ueber eine Lücke' essay. Here, Trendelenburg first tells us that these terms do not exclude each other and can be simultaneously instantiated by the same object. He goes on to characterize these terms as 'relations' [*Beziehungen*], and crucially for our purposes, he states that these terms denote 'only an origin and the thereby conditioned validity [*Geltung*]' ('Ueber eine Lücke', 222). This characterization is still somewhat unhelpful, because Trendelenburg ascribes two aspects (origin and validity) to these terms that could in principle come apart. We find some help, though, in Trendelenburg's examples. The primary example he appeals to are mathematical figures,

¹⁹ Cf. Grapengiesser, *Kant's Lehre von Raum und Zeit*, 5. Though Kant does not directly describe them as subjective in the Aesthetic, he does make comments such as that space and time belong to 'the subjective constitution of our mind' (A23/B37-8) and that they are 'subjective representations' and 'conditions' (A28/B44). In the later essay 'What Real Progress has Metaphysics Made in Germany since the Time of Leibniz and Wolff?' Kant more directly describes space as subjective. See *Kants gesammelte Schriften*, vol. 20: 269.

which are claimed to be both subjective and objective ('Ueber eine Lücke', 222; see also 219-20). For example, when we ask what the shortest distance is between two points, and we see through the act of construction in our minds that this distance is a line, this line is subjective; but it also becomes objective when we draw this line on a piece of paper. Note that both the process of creating a subjective line and an objective line obviously involve the activity of motion, which points to a unity in the object of thought and the object in reality. In the important case of space and time, Trendelenburg says that these representations are subjective, insofar as they 'have an origin in the activity of our mind and as we utilize them as forms of this origin' ('Ueber eine Lücke', 223). This corroborates his earlier claim that to call a representation subjective (or objective) is to make a claim both about its origin *and* its validity or applicability.²⁰

There is one more detail to add to Trendelenburg's understanding of objectivity. He goes on to say that the objectivity of space arises in the following way: the same universal motion that is responsible for generating the a priori representation of space in our minds also exists among the things in themselves, and this leads to a correspondence between our a priori representation of space and 'something in the things [in themselves]' ('Ueber eine Lücke', 223). In virtue of this correspondence, our representation of space applies to things in themselves; correspondence is thereby the mechanism responsible for a subjective representation having application or validity for objective things in themselves. Since motion is the common activity that makes the correspondence possible, space provides yet another example of the way in which motion acts as a unifying principle between what we produce in thought and what exists independently of our minds in reality.

That is the end of the textual clues that Trendelenburg leaves us. The major problem now is that there are two ways of reading Trendelenburg's use of 'objective' and 'subjective', and I think that

²⁰ Vaihinger argues that Trendelenburg's combining of issues of origin with issues of validity leads Trendelenburg's argument to become incoherent. See Vaihinger, *Commentar* II, 136-8. However, Vaihinger goes on to reformulate Trendelenburg's argument and ultimately agrees that the Neglected Alternative objection Trendelenburg had in mind succeeds.

his texts under-determine which one he endorses. Recall that Trendelenburg twice mentions two elements that constitute whether something is subjective or objective – origin and applicability. However, as we will see when we consider Kant and the Neglected Alternative objection, these are features that could in principle come apart. Thus, similarly to Hans Vaihinger's own analysis of the Neglected Alternative, we will separate the two different features that determine subjectivity and objectivity, while keeping in mind that Trendelenburg holds that the features are linked together.²¹

Subjective Applicability

A structure is subjective just in case it applies to mind-dependent entities.

Objective Applicability

A structure is objective just in case it applies to mind-independent entities.

One clear limitation of this characterization of 'subjective' and 'objective' is that it only describes the kinds of things that can have an application to something or a validity for a domain, for example: structures, figures, representations, concepts, and intuitions. I use 'structure' since it seems like the most general of these terms that does not have an explicitly mentalistic connotation, and it coheres with the examples that Trendelenburg uses to illustrate the terms 'subjective' and 'objective'. The other option Trendelenburg gives us is to characterize subjectivity and objectivity in terms of origin:

Origin Subjectivity

A structure is subjective just in case it originates in a finite mind.

²¹ See Vaihinger, *Commentar* II, 136-8 where he delineates the *Ursprungsfrage* and *Geltungsfrage*. My consideration of the *Ursprungsfrage* is importantly different from Vaihinger's however, in that I consider the origin of space itself, whereas Vaihinger inquires about the origin of our representation of space.

Origin Objectivity

A structure is objective just in case it originates outside of a finite mind.

With both these characterizations of 'subjective' and 'objective' in hand, we can now return to Trendelenburg's reconstruction of Kant's argument in the Aesthetic with which we began this section (page 13 above). Our previous discussion can help us make sense of the last three moves in this argument. The third proposition on either reading of 'subjective' would be accepted by both Trendelenburg and Kant, since they both accept that a priori forms have validity for the realm of the mind-dependent and both accept that our a priori knowledge of space means that space originates in the mind.

Much, then, hinges on the fourth proposition. If we read 'subjective' and 'objective' in terms of applicability, we should understand this proposition as saying that if space is something that has validity for the mind-dependent, it could not also have validity for anything mind-independent. On the other hand, if we read 'subjective' and 'objective' in terms of origin, then if space originates in the mind, then it does not also have an origin outside of the mind. On either reading, it is clear that this is the premise where Trendelenburg thinks that Kant unjustifiably neglects an alternative. It should be evident from the previous discussion that at least part of this neglected alternative is the possibility that space is both subjective and applies to things in themselves. Since on either reading of the term 'subjective', both Kant and Trendelenburg agree that space is subjective, Trendelenburg is at a minimum making the following claim, which I will call the 'Simple Alternative'.

Simple Alternative

Space is an a priori representation that originates in the human mind and applies to mind-dependent entities (and is thus, subjective), but it also applies to things in themselves (and is thus, objective).²²

²² The Simple Alternative is very similar to the views that Vaihinger and Edward Kanterian ascribe to Trendelenburg. See *Commentar* II, 139 and 'Trendelenburg Versus Kant, Fischer, and Bird', 268.

We can add that Trendelenburg holds that space applies to things in themselves in virtue of a correspondence between space and the nature of the things in themselves that is a result of their common root in the activity of motion (cf. 'Ueber eine Lücke', 268).

Clear support for the Simple Alternative is spread throughout Trendelenburg's corpus. Consider first in the 'Ueber eine Lücke' essay where he describes the dual subjectivity and objectivity of space as the fact that space has validity for both thought and the things in themselves (219). Elsewhere, Trendelenburg adds to this picture that space specifically has an a priori origin in the mind. For example, later in 'Ueber eine Lücke' he says that neither Fischer nor Kant could refute that space and time have 'both a subjective origin in cognition and an objective meaning [*Bedeutung*] in reality [*Sein*]' (259). In the essay 'Kuno Fischer und sein Kant', as well, he describes the third alternative as the possibility that space is the 'a priori presupposition of all sense perception but at the same time valid for the things' (p. 9; see also p. 2).

According to the Simple Alternative, space is something that exists as a representation in our minds, but this representation still applies to things in themselves. However, in line with the idea of 'origin objectivity' explicated earlier, Trendelenburg sometimes suggests that there is more to the alternative that he has in mind. Specifically, Trendelenburg suggests that space itself literally arises both in the mind and outside of it. In support of this interpretation first note that it would straightforwardly follow from Trendelenburg's assertion that space applies to things in themselves combined with his claim that origin is what conditions validity (Ueber eine Lücke, 222 and 223). Additionally, Trendelenburg's language is sometimes suggestive of this possibility. Consider in the *Logische Untersuchungen*, when he says that we call space and time 'pure intuitions, *insofar* as they [are] in us, unconditioned by experience, as an underlying condition of experience. Subjectively they are pure intuitions without thereby sacrificing reality objectively' (*LU*, 223, my emphasis). Thus, it could be that space and time have an existence within our minds, as pure intuitions, but also exist outside of them in reality. This possibility is very strongly suggested in one of his statements

of the Neglected Alternative, presented earlier, when he says that in Kant 'there nowhere emerges a thought that prevents space and time from being at the same time something outside of human intuition' (*LU*, 162). Thus, we may want to interpret Trendelenburg to have in mind a more complex alternative than the Simple Alternative. He may hold the following:

Complex Alternative

Space is an a priori representation that originates in the human mind and applies to mind-dependent entities (and is thus, subjective), but it also has an origin outside of the human mind and applies to things in themselves (and is thus, objective).²³

Now that we have developed two possible interpretations of Trendelenburg's alternative, there are two remaining tasks. In the next section we will go back to Kant and assess Trendelenburg's own interpretation of him. Specifically, we will look to see whether Trendelenburg may plausibly point to a gap in Kant's argument. After showing that Trendelenburg's objection at least points to actual features of Kant's thinking, we will return to his alternative and further refine it in the final section.

IV. Trendelenburg's Interpretation of the Aesthetic

Trendelenburg's reconstruction of Kant reproduced above (p. 13) is a fairly crude representation of how Kant actually argues in the Aesthetic. Most problematically, it completely ignores the intuitiveness of the representation of space, and further, Kant cites considerations beyond just the necessity and universality of space to demonstrate that we represent space as an a priori intuition.²⁴ We already know that Kant accepts that space is subjective in Trendelenburg's

²³ Sebastian Gardner at one point interprets Trendelenburg as holding a view like this. See his *Kant and the Critique of Pure Reason*, 107. Kuno Fischer also interprets Trendelenburg in a similar way (see the quotation on p. 11-12 above). Trendelenburg, however, contests the objections to his philosophy that Fischer develops on the basis of this characterization ('Ueber eine Lücke', 262-3).

²⁴ Specifically, Kant uses the facts that space is infinite, that the entirety of space is more fundamental than its parts, and that we can only represent a single space as key premises in his argument for the claim that space is an a priori intuition. In the earlier *Logische Untersuchungen* Trendelenburg does consider Kant's arguments for the intuitive nature of space (*LU*, 156-8 and

sense, so the essential issue, now, is whether Kant moves from the claim that our representation of space is an a priori intuition to the conclusion that space is not objective in one of Trendelenburg's senses of the term.

The key section for investigating this issue is the 'Conclusions from the above Concepts'. This is where Kant employs the results of the previous Expositions to make claims about the ontological nature of space itself. We need to look for two claims: that our representation of space (i.e. our a priori intuition of space) could not apply to anything mind-independent and that space could not also arise independently of the human subject. Both of these claims are indeed found in the Conclusions. The denial of the applicability or validity of our representation of space is found towards the beginning of the section:

We can accordingly speak of space, extended beings, and so on, only from the human standpoint. If we depart from the subjective condition under which alone we can acquire outer intuition, namely that through which we may be affected by objects, then the representation of space signifies [*bedeutet*] nothing at all (A26-7/B42-3).

In other words, our representation of space only has significance in the world of objects conditioned by humans and does not apply to anything beyond this world. Kant even more explicitly limits the validity of space to appearances later in the Aesthetic, when he says that appearances 'alone are the field of their [space and time] validity, beyond which no further objective use of them takes place' (A39/B56).

We can also find Kant's denial of the possibility that space could arise independently of any humans. In his explanation of 'transcendental idealism', he says that space 'is nothing as soon as we leave aside the condition of the possibility of all experience, and take it as something that grounds

162-3) and actually endorses the view that we have an a priori intuition of space (223). Thus, my criticism applies specifically to the reconstruction in the 'Ueber eine Lücke' essay.

the things in themselves' (A28/B44). Later in the B edition, Kant goes on to talk about the 'absurdity' of a mind-independent space (B70-71) and points out the theological benefits of his denial of mind-independent space (B71-2). Thus, Kant does in fact rule out the possibility of an objective space on both of Trendelenburg's senses of 'objective'. Since he rules out these possibilities, he rules out the alternative views of space that I have attributed to Trendelenburg.

This is not to say, however, that Kant *neglects* these alternatives. It may be that what Kant presents earlier in the Aesthetic justifies his ruling out the alternatives. This difficult issue is one that will need to be considered elsewhere. For now, our last task is to explore Trendelenburg's alternative view of space in more detail, so we can be ready to accurately judge whether Kant is aware of it and whether he is able to successfully argue against it.

V. The Origin and Applicability of Space

One worry in the previous discussion is whether Trendelenburg's alternative, particularly in its complex form, is coherent. Does it even make sense to say that space comes to exist both in the mind and in mind-independent reality? I think the possibility is at least coherent, but to show this, we must look a bit more closely at the way that Trendelenburg describes his view.

The best place to start is with Trendelenburg's response to one of Fischer's objections mentioned earlier. Fischer objects that Trendelenburg's view really amounts to saying that there is one space, the objective space, and then a mere copy of this space, the subjective space, in our minds. Though Fischer understands Trendelenburg to be *claiming* that there are two instances of space, Fischer argues that the view ultimately collapses into a view on which there is just a single space. Trendelenburg directly responds to this objection in 'Ueber eine Lücke'. Here, he protests against Fischer's description of subjective space as an *Abbild* or *Nachbild* (copy or after-image) and insists that he is describing subjective space as a *Gegenbild* (a counter-image or mirror image) of

objective space. Trendelenburg tries to explain his use of '*Gegenbild*' by employing the analogy of the strophe and antistrophe in a Greek chorus ('Ueber eine Lücke', 268; cf. 221 and *LU*, 322). The strophe and antistrophe are successive parts of the chorus's chant that have the same meter but involve the chorus moving in opposite directions. Though Trendelenburg does not elaborate on the analogy, the idea seems to be that the space in the mind and the space in reality are in some sense equal structures, where neither is a mere copy of the other. They share a similar structure, but the possibility is left open, and is suggested by the analogy, that they develop in different ways.

This forces us to figure out exactly in what ways the subjective space and objective space are supposed to be similar and different. Trendelenburg suggests that there is not an exact point-to-point correspondence between the spaces, so what kind of correspondence is there? (*LU*, 142)²⁵ One claim that is made in the *Logische Untersuchungen* is that corresponding laws govern the space of the mind and the space of the outer world (*LU*, 322-3). The difference, though, is that the laws of the mind are known *a priori*, whereas the corresponding laws of the outer world can only be known through experience. This is an aspect of Trendelenburg's goal of uniting the *a priori* and *a posteriori* (see, e.g., *LU*, 235). The explanation for the corresponding laws of both these spaces is that they are both produced by the same force: motion. Trendelenburg also characterizes the infinite nature of both structures in the same way. The infinite nature of space is to be understood in terms of the unconstrained activity of motion (*LU*, 167-8). He emphatically states that space is not a complete or given form, as he maintains Kant argued, but rather that we should understand the infinitude of space in terms of its unlimited potential growth and development.

In addition, we can infer more specifically what kinds of laws some of these corresponding laws have to be. As discussed above, in his criticism of Kant's view of space Trendelenburg argues

25 Trendelenburg enumerates the ways that motion exists in nature and then says, 'the same motion belongs to thought, though not in the same manner where a point in the motion of thought covers [*deckt*] the corresponding point of motion in nature externally. Nevertheless, there must be a counter-image [*Gegenbild*] of the same motion, because how would motion otherwise come up to consciousness?' (*LU*, 142). Hence, Vaihinger's claim that Trendelenburg holds that the *a priori* representation of space completely corresponds to objective reality is inaccurate (*Commentar* II, 146).

that Kant does not provide a sufficient ground for geometry because the subject matter of geometry, the structure of space, lies solely in the subject. Trendelenburg accepts that mathematical knowledge comes from a priori construction, so if we are to remedy the defect he sees in Kant's view of geometry, it must be the case that the geometrical constructions we create in a priori intuitions correspond to geometrical features of mind-independent space. In other words, the structure of mind-independent space must confirm the constructions we create a priori, and in the seventh chapter of the *Logische Untersuchungen*, Trendelenburg outlines how this in fact occurs (*LU*, 289-93). Trendelenburg then briefly discusses examples from the physical sciences, like astronomy and optics, whose own laws concerning mind-independent objects are grounded in the subjectively and objectively valid laws of mathematics, which in turn trace back to the nature of motion. Therefore, insofar as we discover mathematical physical laws through a priori intuition, the laws must correspond to mind-independent reality.

Thus, we have very quickly canvassed a few important ways in which the spatial structures in our minds and in reality correspond: in their laws, in their infinite nature, and in their mathematical structures. But we must now look more closely at how to describe Trendelenburg's view of space. Following Fischer, we might describe Trendelenburg as holding that there are two 'exemplars' of space, and Trendelenburg describes his own view as positing the existence of two spatial structures that mirror each other. In trying to describe Trendelenburg's view, we could say that space has two instances or instantiations. There are important implications of these ways of describing space that we must now draw out.

At least in his complex formulation of the Neglected Alternative, Trendelenburg views space as the kind of thing that can have multiple instances or instantiations; space comes to be exemplified both in the mind and in absolutely mind-independent reality. To put this in Kantian terms, Trendelenburg views 'space' as denoting a concept. 'Space' does not directly refer to some particular structure but rather describes a structure that can be instantiated indefinitely, like the

concepts denoted by 'rectangle' or 'house'. Thus the space that we access through a priori intuition and the mind-independent space have the property of being space in virtue of having the qualities specified by the concept of space (cf. Hermann Cohen, *Kants Theorie der Erfahrung*, 72).

There is an obvious tension between this understanding of space and Trendelenburg's affirmation of the Kantian view that space is an a priori intuition. To say that space is an a priori intuition is to hold that space is a *particular* structure that we can know prior to experience, and further, space is this particular structure in virtue of our representation of it directly referring to it; the structure is not space in virtue of having certain properties or satisfying a description. How can Trendelenburg endorse this Kantian view of space and at the same time treat space like it is a concept? It should come as little surprise that the opposition between concept and intuition is another dualism that Trendelenburg thinks his philosophical system of motion can overcome (*LU*, 314-5). In this particular case, Trendelenburg can say that the specific structure referred to by our a priori intuition of space has the property of being space in virtue of it satisfying the requirements of the concept of space. But in addition, we have a special sort of epistemic access, pure intuition, to this particular instantiation of space. Another way to describe the situation is to say that we construct space a priori in our minds, but what we construct has the property of being space, because our construction satisfies the criteria specified by the concept of space. This is consistent with the existence of other structures, perhaps completely mind-independent structures, also satisfying the criteria specified by the concept of space and thus also being space. Therefore, at a first glance, Trendelenburg can accommodate Kant's fundamental claim about our knowledge of space.

VI. Conclusion

The previous discussion gives us an understanding of Trendelenburg's Neglected Alternative

objection against Kant's argument in the *Transcendental Aesthetic*. In adjudicating the dispute over the Neglected Alternative, there are two essential points of contention between Trendelenburg and Kant:

- 1) Can our representation of space, an a priori intuition, have validity for absolutely mind-independent reality? Kant denies that it can and Trendelenburg argues that Kant is unjustified in his denial.

- 2) In addition to the space that orders appearances, can there exist another space, or another instantiation of space, that exists completely independently of us? Again, Kant denies such a possibility and Trendelenburg argues that this denial is unjustified.

I argue elsewhere that Kant has the resources to rebut Trendelenburg's points (Specht, 'Kant and the Neglected Alternative', forthcoming). However, whether or not I am correct, we are now in a better position to understand the Neglected Alternative objection and assess its plausibility.²⁶

²⁶ For comments on ancestors of this paper, I am greatly indebted to Fred Beiser, Jake Browning, Shane Callahan, an audience at the University of South Florida, and the anonymous referees and editor of the *Journal*. I also thank Tara Harvey for her advice on translation.

BIBLIOGRAPHY

- Adair-Toteff, Christopher. 'The Neo-Kantian *Raum* Controversy'. *British Journal for the History of Philosophy* 2, (1994): 131-148.
- Allison, Henry. 'The Non-Spatiality of Things in Themselves for Kant', *Journal of the History of Philosophy* 14, (1976): 313-21.
- Beiser, Frederick. *Late German Idealism: Trendelenburg and Lotze*. New York: Oxford University Press, 2013.
- Bird, Graham. 'The Neglected Alternative: Trendelenburg, Fischer and Kant'. In *A Companion to Kant*, edited by Graham Bird, 486-99. Malden: Blackwell, 2009.
- Bratuscheck, E.. 'Kuno Fischer und Trendelenburg'. *Philosophische Monatshefte*, V. Band, Sommersemester (1870): 279-323.
- Cohen, Hermann. *Kants Theorie der Erfahrung*. Berlin: Ferd. Dümmler, 1871.
- Falkenstein, Lorne. *Kant's Intuitionism: A Commentary on the Transcendental Aesthetic*. Toronto: University of Toronto Press, 1995.
- Fischer, Kuno. *Logik und Metaphysik oder Wissenschaftslehre: Lehrbuch für akademische Vorlesungen*. Stuttgart: Scheitlin's Verlagshandlung, 1852.
- Fischer, Kuno. *System der Logik und Metaphysik: Zweite völlig umgearbeitete Auflage*. Heidelberg: Friedrich Bassermann, 1865.
- Fischer, Kuno. *Geschichte der neuern Philosophie: Kants Vernunftkritik und deren Entstehung* (Dritter Band). Heidelberg: Friedrich Bassermann, 1869.
- Gardener, Sebastian. *Kant and the Critique of Pure Reason*. New York: Routledge, 1999.
- Grapengiesser, C.. *Kant's Lehre von Raum und Zeit: Kuno Fischer und Adolf Trendelenburg*. Jena: Friedrich Mauke, 1870.
- Hartung, Gerald and Klaus Köhnke, eds. *Friedrich Adolf Trendelenburgs Wirkung*. Eutin: Eutiner

- Landesbibliothek, 2006.
- Herissone-Kelly, Peter. 'The Transcendental Ideality of Space and the Neglected Alternative'.
Kant-Studien 98, (2007): 269-82.
- Hogan, Desmond. 'Three Kinds of Rationalism and the Non-Spatiality of Things in Themselves'.
Journal of the History of Philosophy 47, (2009): 359-64.
- Kant, Immanuel. *Kants gesammelte Schriften*, Edited by the Berlin-Brandenburg Academy of Sciences. Berlin: Walter de Gruyter, 1900-.
- Kant, Immanuel. *Critique of Pure Reason*, Edited by Paul Guyer and Allen Wood. New York: Cambridge University Press, 1999.
- Kanterian, Edward. 'The Ideality of Space and Time: Trendelenburg Versus Kant, Fischer and Bird'.
Kantian Review 18, (2013): 263-88.
- Käufer, Stephan. 'Hegel to Frege: Concepts and Conceptual Content in Nineteenth-Century Logic'.
History of Philosophy Quarterly 22, (2005): 259-80.
- Köhnke, Klaus. *Entstehung und Aufstieg des Neukantianismus*. Frankfurt a.M.: Suhrkamp, 1986.
- Lachmann, Hans-Jürgen. 'Über den Anfang der Logik und die Logik des Anfangs – Anmerkungen zu Trendelenburgs Hegelkritik'. In *Friedrich Adolf Trendelenburgs Wirkung*, edited by Gerald Hartung and Klaus Köhnke, 13-42. Eutin: Eutiner Landesbibliothek, 2006.
- Moore, G.E.. *Some Main Problems of Philosophy*. New York: Macmillan, 1953.
- Morris, George. 'Vera on Trendelenburg'. *Journal of Speculative Philosophy* VIII, (1874): 92-4.
- Pistorius, H.A.. 'Erläuterung über des Herrn Professor Kant Kritik der reinen Vernunft von Joh. Schultze, Königl. Preußischem Hofprediger. Königsberg, bey Dengel, 1784. 8. 254 Seiten'.
Allgemeine deutsche Bibliothek 66, (1786): 92-123.
- Rosefeldt, Tobias. 'Subject-Dependence and Trendelenburg's Gap'. In *Akten des XI. Internationalen Kant-Kongresses*, edited by Stefano Bacin, et al., 739-48. Berlin: Walter de Gruyter, 2013.
- Russell, Bertrand. *The Problems of Philosophy*. London: Oxford University Press, 1912.

- Schelling, F.W.J.. *Ideen zu einer Philosophie der Natur*. In *Sämmtliche Werke* (Zweiter Band),
 edited by K.F.A. Schelling. Stuttgart: J.G. Cotta, 1857. [originally published in 1797/1803]
- Scott-Taggart, M.J.. 'Recent Work on the Philosophy of Kant'. *American Philosophical Quarterly* 3,
 (1966): 171-209.
- Specht, Andrew. 'Kant and the Neglected Alternative'. PhD diss., Syracuse University, forthcoming.
- Trendelenburg, Friedrich Adolf. *Logische Untersuchungen*. Leipzig: S. Hirzel, 1862. [other editions
 in 1840 and 1870]
- Trendelenburg, Friedrich Adolf. 'Ueber eine Lücke in Kants Beweis von der ausschliessenden
 Subjectivität des Raumes und der Zeit'. In *Historische Beiträge zur Philosophie* (Band III),
 215-76. Berlin: G. Bethge, 1867.
- Trendelenburg, Friedrich Adolf. *Kuno Fischer und sein Kant: eine Entgegnung*. Leipzig: S. Hirzel,
 1869.
- Vaihinger, Hans. *Commentar zu Kants Kritik der reinen Vernunft: Zweiter Band*. Stuttgart: Union
 deutsche Verlagsgesellschaft, 1892. [*Commentar II*]
- Van Cleve, James. *Problems from Kant*. New York: Oxford University Press, 1999.
- Vilkko, Risto. 'Trendelenburgs Kritik der Herbartschen Logik und ihr Einfluß auf die Reform der
 Logik'. In *Friedrich Adolf Trendelenburgs Wirkung*, edited by Gerald Hartung and Klaus
 Köhnke, 43-54. Eutin: Eutiner Landesbibliothek, 2006.