“Tetens as a Reader of Kant’s Inaugural Dissertation”

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The history of the reception of Kant’s Inaugural Dissertation of 1770 tends to focus on the responses to it penned by Moses Mendelssohn, Johann Heinrich Lambert, Johann Schultz, and (to a lesser extent) Markus Herz. There is, of course, some justification for this: Mendelssohn, Lambert and Schultz succeeded in raising a problem for Kant’s views on the subjectivity of time that would continue to exercise him through to the completion of the first edition of the *KrV* (and likely after[[1]](#footnote-1)), and Herz’s *Betrachtungen aus der speculativen Weltweisheit* (Königsberg, 1771) are credited by some with drawing Kant’s attention to the important role of the *I* with respect to our representations.[[2]](#footnote-2) Even so, such a survey of the reception of Kant’s Dissertation remains importantly incomplete as it overlooks one key figure, namely, Johann Nicolaus Tetens. Tetens engages with Kant’s Dissertation at a number of junctures in his two most important philosophical works, the essay *Über die allgemeine spekulativische Philosophie* of 1775 and the two-volume *Philosophische Versuche* of 1777. While these texts were published sometime after the previously mentioned responses by Mendelssohn and Lambert, and indeed well into Kant’s silent decade, they are no less significant for the development of key Critical doctrines, or so I shall argue here. In particular, I will focus on Tetens’ little considered discussion of the acquisition of concepts of space and time and, as I will show, Tetens is not content (in contrast to Mendelssohn, for instance) merely to diagnose problems with Kant’s analyses, but instead offers his own solutions which I will suggest anticipate, and might have even proven influential upon, Kant’s thinking in the *KrV* and after.

 Kant’s focus in the third section of the Dissertation is on disclosing the special status of space and time as forms of the sensible world, which he does using arguments that are familiar from the Metaphysical Exposition in the *KrV*. While Kant does talk freely throughout this section in the Dissertation of the *concepts* of space and time, it is only in a short paragraph at the end that he turns his attention to the question of where these concepts originate. This paragraph begins:

Finally, the question arises for everyone, as though of its own accord, whether each of the two *concepts* [of space and time] is *innate* or *acquired*. The latter view, indeed, already seems to have been refuted by what has been demonstrated. (MSI, AA 02: 406.11-13)[[3]](#footnote-3)

In what follows, Kant displays his (later characteristic) disregard for the theory that these concepts are both innate, contending that such a view “paves the way for a philosophy of the lazy” (MSI, AA 02: 406.13-14). Instead, Kant proceeds to consider space and time to be acquired concepts, though he takes the process of their acquisition to distinguish them from other sensitive concepts since he will argue they cannot be acquired through “abstraction from the sensing of objects” (MSI, AA 02: 406.16-18). According to Kant, that the concepts of space and time might be acquired in this way has been ruled out by the first argument in the expositions of each concept which demonstrated that neither can be taken to be abstracted from sensations or experience. So, in the case of space, Kant argues that the “concept of space is not abstracted from outer sensations” inasmuch as the “possibility [...] of outer sensations as such *presupposes* the concept” (MSI, AA 02: 402.19-20), and Kant contends similarly with respect to time that the concept cannot be “regarded as if it had been acquired through experience” (MSI, AA 02: 399.2-3).

Having ruled out the innateness of the concepts of space and time as well as the possibility of abstracting them from external objects, Kant will contend that the concepts of space and time are abstracted, albeit “from the very action of the mind, which co-ordinates what is sensed by it” (MSI, AA 02: 406.18-19). Earlier in the Dissertation, Kant identified a *form* of sensation with “a certain law, which is inherent in the mind and by means of which it co-ordinates for itself that which is sensed” (MSI, AA 02: 393.6-7). This is to say that space and time, as such forms, amount to laws on the part of the subject that govern its acts of co-ordinating sensations with respect to one another, either as co-existing or as successively ordered. Given that space and time are identified, in the Dissertation, with such “sensitive laws of the subject” (MSI, AA 02: 407.2), Kant proceeds to contend that the *concepts* of space and time must derive from a direct perception of the action on the part of the subject in accordance with these laws. So, Kant claims that “the concept of time rests exclusively on an internal law of the mind” (MSI, AA 02: 401.9-11) and that the concept of space is likewise “given originally by the nature of the mind” (MSI, AA 02: 404.35-6). As a result, while the concepts of space and time are “fundamental and originary” inasmuch as they are derived from innate laws of the mind, they are nonetheless *acquired* concepts (as opposed to “innate intuitions”—MSI, AA 02: 401.10) since they only arise through our inspection of the acts of the mind.

 In both of his works of the mid-1770’s, the programmatic essay *Über die allgemeine speculativische Philosophie* of 1775 and the much more extensive *Philosophische Versuche*[[4]](#footnote-4)*,* Tetens indicates that he is quite receptive to Kant’s project in the Dissertation, and particularly to its treatment of space and time. Indeed, and perhaps uniquely within the reception of the Dissertation, Tetens agrees *both* with Kant’s characterization of space and time themselves as laws that govern the subject’s acts of co-ordination *and* with Kant’s contention that these concepts cannot be abstracted from sensations of external objects. As Tetens writes:

Hr. Kant was the first, as far as I know, to say that *space is a certain instinctive way of ordering co-existing things next to one another*, and that it cannot therefore be abstracted from the objects that are sensed, that is, from the individual sensations of objects, as many philosophers imagine to be the case. (*PV* IV.vii.4; I, 359f)

Tetens is clear that space and time are at bottom “acts of sensation” on the part of the subject, which I take it is to say that they are acts of the mind that serve to relate given sensations to one another. Moreover, Tetens also accepts that the ideas of space and time cannot be abstracted from external objects. Significantly, however, Tetens qualifies this insofar as he takes Kant only to have shown that the ideas of space and time cannot be abstracted from *individual* sensations of external objects, though what precisely is intended by this qualification will be considered shortly. In spite of these key points of agreement, Tetens does not accept Kant’s account of how we do in fact acquire the concepts of space and time. Indeed, Tetens rejects Kant’s contention that these ideas are somehow abstracted directly from the law-governed acts of the mind as needlessly opaque and as a violation of the strictures Kant imposes on human cognition. As Tetens recognizes, Kant’s claim that the concepts of space and time are derived from the soul’s direct perception of its own activities risks introducing a special sort of non-sensible intuition, and Tetens emphasizes that this would amount to the Leibnizian exemption of the acts of the mind from the inner sense, considered as a sensible mode of access to the self, an exemption that Tetens rejects:

Among *internal sensations* alsobelong the feelings of our *activities* and *manners of thinking*, from which feelings the concepts of *thought* and the *understanding* have their origin. Therefore, the restriction that Leibniz imposes on the principle that nothing is in the intellect that is not first in the senses, excepting the intellect, is unnecessary. (*Über die allgemeine*, 42n)

Here, Tetens puts his finger upon a genuine tension in Kant’s views in the Dissertation. So, Kant seems, at one point, to accept that introspection only yields mere appearances; thus he claims that the “*phenomena* of inner sense” are set forth in *empirical* psychology (MSI, AA 02: 397.23-4—my emphasis). The ideas of space and time are acquired inasmuch as the laws of the mind are “cognised intuitively” (MSI, AA 02: 406.19-20), but in this these concepts are no different than the (intellectual) concepts of the understanding, which are likewise “abstracted from the laws inherent in the mind” (MSI, AA 02: 395.22), and yet the latter are not identified as sensitive concepts and therefore could not have their ground in a sensible intuition.

To resolve this tension, Tetens rejects Kant’s positive contention that the ideas of space and time can be acquired through a sort of direct intuition of the acts of the subject. As Tetens argues, the concepts of space and time are not mysteriously abstracted from these acts themselves, but rather from their *effects*, that is, from the representations of individual spaces and times that are produced by these acts. This subtle, but essential amendment is presented in the following passage:

The profound man [Kant] is certainly correct that the relational action of the soul, with which it unites all simultaneously present obscure feelings into One whole [*Ein Ganzes*], is a naturally necessary effect of its relational power applied to co-existing things. It is also correct that such a relation is necessarily required for the concepts of space and time. However, the proper material for the idea of space, its image or representation, which constitutes the idea of space as a perceived representation, is not the act with which the various feelings are *united* into One whole, but it is rather the effect of the action, the united whole of sensation whose components are the undifferentiated feelings, that is, [the proper material is] this entire united act of sensations. (*PV* IV.vii.4; I, 360)

Tetens’ much more complex account of the acquisition of the concept of space sets out, as Kant’s did, from the action of the soul in relating, or co-ordinating, co-existing objects in spatial relations to one another. However, as Tetens emphasizes, it is not reflection on the act of co-ordinating that yields the concept of space but it is instead by means of abstracting from the resulting representation—the “united whole of sensations”—that we acquire the concept. This accounts for Tetens’ previously mentioned qualification of Kant’s denial that space and time are drawn from individual sensations of external objects; so, while he sides with Kant that such concepts cannot be found as marks among *individual* (presumably, non-spatially related) sensations, he nonetheless argues that the activity of the soul serves to introduce this content into our sensations when they are brought into spatial relations as a complex whole. Yet, Tetens is clear that our reflection upon this resulting complex of sensations only suffices to yield the representation of an individual or local space, and that it is through further abstraction from this that we generate the properly general concept of space as such: “[f]rom the idea of *individual* spaces and times arises the *common concepts* [*Gemeinbegriffe*] of space and time, and then the common concepts of a *single whole infinite space* which encompasses everything and of a *single infinite time*” (*PV* IV.vii.4; I, 360).

 This account of the acquisition of the general concepts of space and time from individual representations of spaces and times does not exhaust the potential relevance of Tetens’ account for Kant’s own discussion, as Tetens also reserves an important role for a productive function of the imagination in the generation of these individual representations. To see this, however, we will need to briefly consider Tetens’ division of the soul’s cognitive faculties. Concerning the soul’s general cognitive capacity (Erkenntnißvermögen), Tetens (usually) distinguishes three fundamental powers: the power of sensation or feeling (Empfindung, Gefühl), the power of representation (Vorstellungskraft), and the power of thinking (Denkkraft).[[5]](#footnote-5) Focusing on the power of representation, in contrast with the Leibnizian-Wolffian tradition, it is taken rather narrowly as the power in accordance with which the soul is able to generate, recall and augment representations, and Tetens distinguishes three different activities that the Vorstellungskraftperforms in this capacity: the apprehension of a sensation and retention of its trace (which Tetens refers to as the act of the power of apprehension); the reproduction of such representations of sensations (an act of ‘imagination’); and the production of a new simple representation (an act of the ‘bildenden Dichtkraft’). Concerning Tetens’ distinction between imagination and the Dichtkraft[[6]](#footnote-6), as opposed to the “solely reproductive phantasy” which derives the order of its representations from the laws governing the external order of observed things, the Dichtkraft serves to *produce* new simple representations[[7]](#footnote-7), and it does so not merely by juxtaposing representations but through effecting a new unity among them by “processing, dissolving, blending, separating, and taking [representations] together, and creating new forms and appearances.”[[8]](#footnote-8) This (threefold) division of the Vorstellungskrafthas, I think, rightly, been taken by Wolfgang Carl and others to foreshadow Kant’s Critical introduction of the imagination, particularly the doctrine of the threefold synthesis.[[9]](#footnote-9) Moreover, as commentators have noted, Tetens’ novel account of the Dichtkraft bears an initial resemblance to the Kantian productive imagination (cf. KrV B152).

Even admitting this initial resemblance, however, it might be doubted whether Tetens allows for a properly *cognitive* use for the Dichtkraft parallel to the one that Kant carves out for the imagination, and specifically its use in producing unity in the pure manifolds of intuition (KrV B151-2). As H. J. de Vleeschauwer succinctly puts it, while Tetens undoubtedly assigns a productive capacity to the Dichtkraft, he simply “has no idea of the specifically Kantian synthetic function attributed to productive imagination, which consists in an operation on the *a priori* spatio-temporal intuitions.”[[10]](#footnote-10) Strikingly, however, not only does Tetens assign a similar function to the Dichtkraftbut he does so explicitly in connection with the foregoing discussion (evidently overlooked by de Vleeschauwer) of the acquisition of the concepts of space and time in the Inaugural Dissertation. Indeed, Tetens makes clear in a number of places that the Dichtkraft plays some role in producing the complex representation from which these ideas are abstracted. Tetens makes this role explicit in a couple of passages:

The concept of *one* space is in general a *universal* concept, formed from individual visual and tactile actions through abstraction and composition [Dichtung]. (*Über die allgemeine*, 42-3n)

In addition the Dichtkraft also plays a part in the complete process of shaping these representations [i.e., the representations of sensation that provide the material for abstracting the concept of time]. (*PV* V.vi; I, 398)

In terms of its distinctive cognitive contribution, the Dichtkraft like the imagination the activity of serves to bring about connections between our representations, but rather than merely juxtaposing representations the Dichtkraft effects a new unity among them by “*driving them into one another* and *mixing them together* [*Ineinandertreiben* und *Vermischen*].”[[11]](#footnote-11) According to Tetens, the Dichtkraft operates on a manifold of largely undifferentiated sensations, connecting them to one another in order to produce a new, continuous representation of a given individual space between the objects that are sensed to occupy it. This contribution on the part of the Dichtkraft is outlined in the following passage:

If we run a finger along a body, it can be that it is only in two places that we receive such sensations that stand out [sich ausnehmen] and are differentiated in the entire series of alterations. The remaining ones will constitute a sensation that comprehends much within it and is clear as a whole but which cannot be differentiated in terms of its individual parts. (*PV* V.vi; I, 398)

Through the act of tracing my finger along the edge of a body, such as a ruler, I receive a couple of conspicuous sensations, say of the starting end of the ruler and a dent in the middle. In addition to these two conspicuous sensations, according to Tetens, there are also innumerable individual but undifferentiated sensations of other points on the ruler, and it is these that are taken up by the Dichtkraft and arrayed in spatial relation to the conspicuous ones, in this case, as being between them. It is therefore, this manifold of individual conscious and unconscious sensations that the Dichtkraft combines into a single complex representation of a given individual space (and time). The properly general concepts of space and time as such, then, are acquired for Tetens through abstraction from this complex product of the Dichtkraft[[12]](#footnote-12); as he writes, these ideas have their source in the representation, the “united whole of sensation” that is the effect of “the act through which the numerous feelings [i.e., external sensations] are *united* into a whole.”[[13]](#footnote-13)

 Accordingly, not only does Tetens appear to assign just such a “synthetic” function to the Dichtkraft, but he does so specifically in connection with his account of the generation of the representations of space and time. Strikingly, Tetens even considers an example by way of illustrating the cognitive function of the Dichtkraft that evokes Kant’s own in discussing the productive imagination in the *KrV*:

When I turn my gaze from the earth to the moon this produces a series of individual acts of seeing which I do not distinguish from one another but take them together; and the same occurs when I trace a circle in the air with my hand without encountering another body. This act, therefore, as a whole consists of many parts that are not distinguished from one another but are taken together as one and represented as an uninterrupted whole. (*PV* IV.vii.4; I, 359)

As Tetens here explains, the external sensations received from perceiving the finger tracing the circle do not, on their own, amount to the representation of the circle; in addition, this representation stands in need of an activity on the part of the mind by means of which these individual sensations are blended together into a representation of a single shape, which activity, as we have already seen, is just the function of the Dichtkraft. While Tetens eschews talk of *a priori* intuitions in favour of the Leibnizian language of “unconscious representations,”[[14]](#footnote-14) yet that Tetens’ discussion here might have served as a source for Kant’s own account of the activity of the productive imagination in unifying the pure manifolds of space and time is suggested by the evidence of Kant’s attention to passages related to Tetens’ treatment of the role of the Dichtkraftin cognition in particular[[15]](#footnote-15), as well as the fact that Tetens’ account is formulated explicitly in terms of an engagement with Kant’s Dissertation.

Tetens’ focus on Kant’s account of the acquisition of the concepts of space and time, rather than Kant’s reduction of time to a merely subjective form of the human mind, is a distinctive but widely-overlooked feature of his reception of the Dissertation,[[16]](#footnote-16) and in the end, we can see that Tetens deserves a special place in the reception of the Inaugural Dissertation. Like Mendelssohn and Lambert, Tetens diagnosed an important challenge to Kant’s project in that work, one that would have lasting significance for the development of the Critical philosophy. Yet, unlike Mendelssohn and Lambert, Tetens does not rest content with pointing out a difficulty, but also sketches a solution which, according to him, only serves to clarify what is obscurely presented in the Dissertation itself:

Did that profound philosopher, Hr. Kant, who is such an acute observer of the understanding, want to say anything other than this when he took *space* for an *intuitive idea* of the way in which the representative power of the senses *co-ordinates* sensations *in accordance with certain laws* that are naturally necessary for it? I think not. The manner of presentation of Hr. Kant concerning the origin of the concepts of the understanding, and the expression[s] used, seem to me to present matters in a more obscure way than they might be presented (*Über die allgemeine*, 42-3n)

Few here would take issue with Tetens’ contention that Kant typically adopts a singularly unhelpful manner of presentation. Yet I also think that few would dispute that, given Tetens’ unique ability to identify and even de-mystify one of the more obscure doctrines presented in the Inaugural Dissertation, it is a regrettable circumstance that he never found the opportunity to apply the same charitable eye to the *Kritik der reinen Vernunft*.

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1. See Falkenstein, Lorne: *Kant’s Intuitionism: A Commentary on the Transcendental Aesthetic*. Toronto 2004, 338-45, as well as my *Kant and Rational Psychology.* Oxford 2014 (especially ch. 6), and *Turning the Game Against the Idealist: Mendelssohn’s Refutation of Idealism and Kant’s Replies*. In: *Moses Mendelssohn’s Metaphysics and Aesthetics*. Ed. Reiner Munk. Dordrecht 2011, 159–82. [↑](#footnote-ref-1)
2. This is the contention of Heiner Klemme in *Kants Wende zum Ich.* In: *Zeitschrift für philosophische Forschung* 53/4 (1999), 507-529. [↑](#footnote-ref-2)
3. In what follows, translations from the *Kritik der reinen Vernunft* follow *The Cambridge Edition of the Works of Immanuel Kant: Critique of Pure Reason*. Transl. and ed. by Paul Guyer and Allen W. Wood. Cambridge 1998, and translations of the Inaugural Dissertation are taken from *Theoretical Philosophy 1755–70*. Transl. and ed. by David Walford. Cambridge 2003. Translations of Tetens’ works are my own. [↑](#footnote-ref-3)
4. I make use of the following editions of Tetens’ works: *Über die allgemeine speculativische Philosophie*. In: *Neudrucke seltener philosophische Werke*. Ed. Wilhelm Uebele. Bd. IV. Berlin 1913; and *Philosophische Versuche über die menschliche Natur und ihre Entwickelung: Kommentierte Ausgabe*. Ed. Udo Roth, ‎Gideon Stiening. Berlin 2014. The former is cited according to the page number in Uebele’s edition, and the latter is cited according to Essay, Chapter, Section; Volume, and page number in the original edition (Leipzig, 1777). [↑](#footnote-ref-4)
5. See *PV* IV.ii; I, 298. [↑](#footnote-ref-5)
6. I have chosen to leave references to the Dichtkraft untranslated, though among the possible translations that have been canvassed are the ‘forming, creative power’ (see Keach, William: *Poetry, after 1740*. In: *The Cambridge History of Literary Criticism: Volume 4, The Eighteenth Century*. Ed. Hugh Barr Nisbet, Claude Rawson. Cambridge 1994, 162), and ‘fancy’ (see Beck, Lewis White: *Early German Philosophy*. Cambridge, Massachusetts 1969, 417). [↑](#footnote-ref-6)
7. *PV*, I.xv.10; I, 140. [↑](#footnote-ref-7)
8. See *PV*, I.xv.2; I, 117f and I.xvi.5; I, 159f. [↑](#footnote-ref-8)
9. See de Vleeschauwer, Herman Jan: *The Development of Kantian Thought*. London 1962, 85f; and Carl, Wolfgang: *Der schweigende Kant*. Göttingen 1989, 118f. [↑](#footnote-ref-9)
10. De Vleeschauwer, Herman Jan: *The Development of Kantian Thought*. London 1962, 86; see also de Vleeschauwer, Herman Jan: *La Déduction Transcendentale dans l’Oeuvre de Kant*. Vol. I. Paris 1936 (reprint New York 1976), 314f. [↑](#footnote-ref-10)
11. *PV* I.xv.2; I, 117. [↑](#footnote-ref-11)
12. See *PV* IV.vii.4; I, 360 (quoted above), and *Über die allgemeine speculativische Philosophie*, 54–55n. [↑](#footnote-ref-12)
13. *PV*, IV.vii.4; I, 360. [↑](#footnote-ref-13)
14. Cf. *PV* III.ii; I, 265. [↑](#footnote-ref-14)
15. In his own edition of the *Versuche* Kant made marginal notations in the section relating to the Dichtkraft’s activity in forming simple sensible representations; see R 4848 (HN, AA 18: 5). [↑](#footnote-ref-15)
16. In addition to the commentators mentioned above, Wilhelm Uebele does not consider this feature of Tetens’ discussion of the Dissertation; see his *Johann Nicolaus Tetens nach seiner Gesamtentwickelung betrachtet, mit besonderer Berücksichtigung des Verhältnisses zu Kant*. Berlin 1911, 103-11. [↑](#footnote-ref-16)