

Tetens on the nature of experience: Between empiricism and rationalism

Clinton Tolley and R. Brian Tracz

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1. Tetens and the critical reception of empiricism in Germany

As recent scholarship has documented,¹ the writings of Johann Nikolaus Tetens (1736-1807) served as one of the key channels of transmission of the views of empiricist philosophers such as Locke and Hume to Germany during the period between Leibniz and Kant. Despite the tendency to caricature 18th-century German philosophy prior to Kant as predominantly rationalist, there was an unmistakable increase in interest in the empiricists in the 1750s, brought about in no small part by the translation of some of their works into German. Hume's *Enquiry concerning the human understanding* was translated by Johann Georg Sulzer in 1755, with the title rendered as *Philosophische Versuche über die menschliche Erkenntnis*; Locke's *Essay concerning human understanding* was translated in 1757 by Heinrich Engelhard Poley as *Versuch vom menschlichen Verstande*.²

A comparison of these titles with that of Tetens' own 1777 masterwork, his *Philosophische Versuche über die menschliche Natur und ihre Entwicklung* (*Philosophical Essays on Human Nature and its Development*),³ suggests that Tetens intended, at the very least, to be in conversation with these two earlier *Versuche*. This intention is confirmed by Tetens' opening remarks in the *Philosophical Essays* itself, where he states explicitly that the method he will be pursuing in his work is the 'observational [beobachtende] one that Locke pursued with the understanding' (PV I iii-iv) – albeit by encompassing not just the understanding but also 'the active power of willing, the basic character of humanity, freedom, the nature of the soul, and its development' (PV I iii). With respect to his account of the understanding or 'power of thinking [Denkkraft]' itself, Tetens' views might seem to tend toward an even more radical empiricism than

¹ See Stiening and Thiel 2014 for an overview; cf. Beck 1969; Kuehn 1985 and 1989.

² In 1756 Lessing also published a translation of Hutcheson's *System of Moral Philosophy* (cf. Stiening and Thiel 2014: 14).

³ Hereafter 'PV I'; all translations are our own, and are cited by pagination to the first volume of the *Versuche*, except for a few quotations from the second volume which are marked as "PV II,pp".

Locke's, insofar as this account is not only preceded by an account of 'sensation [Empfindung]' and 'feeling [Gefühl]', but eventuates in the claim that 'all ideas and concepts are without exception processed [bearbeitete] representations of sensation' (PV I 340). Remarks such as these are surely behind the estimation codified in a later remark by Hegel's student and biographer Karl Rosenkranz, who in 1840 apparently dubbed Tetens 'the German Locke' (Thiel 2018: 61; cf. Beck 1969: 412). More generally, it has led many readers to attribute to Tetens some version of empiricism, over and against the Leibnizian commitment to concepts or ideas that are in some sense innate, i.e., drawn from a source other than sensation or perception (cf. Beck 1969: 412-25; Allison 2015: 143-63).

As we will show below, however, a closer look at Tetens' account of the 'processing' that is involved in concept-formation shows that his work bears a much more complicated relation to empiricism than is commonly acknowledged.⁴ For one thing, in the PV itself, as well as in his earlier 1775 essay *Über die allgemeine speculativische Philosophie (On universal speculative philosophy)*,⁵ Tetens in fact shows himself to be quite sympathetic to specifically Leibnizian arguments concerning the impossibility of accounting for the origin of all of our concepts on the basis of sensation alone. Perhaps most importantly, he endorses Leibniz's claim that concepts such as substance and cause must have a non-empirical origin.⁶ What is more, Tetens also deploys this account of concepts to go beyond what he takes to be found in Locke or Hume, in order to elaborate a rigorous differentiation between the mere having of a sensation in the mind and what must be involved over and above sensation for a mental state to merit the name of experience [Erfahrung]. Finally, Tetens takes an even more decidedly non-empiricist line on the source of our cognition by arguing – in a way that echoes Leibniz's own criticisms in the Preface to the *Nouveaux Essais* – that neither sensations nor even experiences suffice to account for our knowledge of universal and necessary principles and the laws treated in philosophy and psychology in particular.⁷

While the foregoing indicates obstacles to any simplistic characterization of Tetens as an empiricist, they also help clarify which exact elements of Locke's approach Tetens nevertheless

⁴ For some helpful, if very brief, remarks on the reasons for resisting the common classification of Tetens as an empiricist, see Stiening and Thiel (2014: 21).

⁵ Hereafter: 'ASP'; again, all translations are our own.

⁶ Indeed, as we will show below, Tetens actively takes up Leibniz's own then-recently published (1765) critical engagement with Locke's views on the origins of concepts in the *Nouveaux Essais*. In fact, shortly after the PV, a German translation of the first two books of Leibniz's *Essais* was published in 1778 by Johann Ulrich under the title *Neue Versuche über den menschlichen Verstand*.

⁷ Cf. PV I 466 and section 4.

meant to endorse. As we will also show below, Tetens' critical discussions of the 'mathematical' methodology of the Leibnizians makes clear that he finds an important virtue in Locke's contrasting 'developmental' or 'synthetic' approach to the understanding and its cognitions. Tetens thinks that only something along the lines of Locke's method promises to show a way forward in addressing Hume's rightful challenge concerning the alleged objective validity of the concepts and principles presented within ontology or *metaphysica generalis* as well as within the branches of *metaphysica specialis*, psychology included. Tetens' own positive proposal in his *Versuche* is to make use of a broadly Lockean method to demonstrate concretely and directly, by means of 'observation', how actual mental phenomena emerge developmentally in relation to sensation and grow into experiences in a way that is coordinate with the system of concepts and principles presented only abstractly in the Leibnizian textbooks on psychology. In this way, Tetens aims to move philosophy forward by effecting a synthesis of Locke and Leibniz, that is, by complementing the Lockean observational method with that of Leibnizian systematization, albeit that the technical terminology he uses to describe the different stages of the mind's development is drawn almost entirely from the Leibnizians rather than the empiricists.

2. From 'experience' to '*Erfahrung*': British empiricism in Germany, after Leibniz

As was noted above, Tetens' mature philosophy – as represented in the 1777 *Philosophische Versuche*, along with his programmatic essay of 1775, – came to fruition during the reception of British empiricism in Germany, which was facilitated by the publications of German translations of Hume (1755) and Locke (1757), as well as the first (posthumous) publication of Leibniz's *Nouveaux Essais* (1765). One key step in assessing Tetens' relation to British empiricism and what he himself means by 'experience', then, consists in becoming familiar with the German psychological terminology that was used to convey these positions to the new audience.

In the 1757 translation of Locke's *Essay*, for example, the claim that *experience* is that in which 'our *knowledge* is founded' and 'from which it derives itself', is rendered by Poley as the claim that *Erfahrung* is that in which 'our *Erkenntnis* is grounded [gründet] and from which it ultimately has its origin [Ursprung]' (Poley 1757: 77). When Locke then splits experience itself into two 'fountains', according to whether our *observation* is 'employed either about external sensible objects, or about the internal operations of the mind, *perceived* and *reflected on* by ourselves', the translation has it that our *Beobachtung* is occupied with either 'outer objects' or with

‘inner effects of our soul that we *empfinden* and *überdenken*’ (Poleyn 1757: 77). What Locke calls *sensation*, that is, the outer source of ideas, is rendered as *sinnliche Empfindung*, whereas the term *reflection*, which denotes the inner source of ideas, is rendered as *Überdenken* (Poleyn 1757: 77-78). The term *idea*, which denotes that which these two sources supply to the mind, or what our mind has before itself when it is *conscious* (*bewußt*) and when it thinks (*denkt*) is rendered as *Begriff* (*concept*) (Poleyn 1757: 76).

In the 1755 translation of Hume’s *Enquiry*, we find a largely parallel usage, along with a few further terms worth flagging that concern Hume’s analysis of the origin of ideas. Hume’s claim that *thoughts* or *ideas* and impressions are two classes or species of ‘*perceptions* in the mind’ is rendered by Sulzer as the claim that ‘*Gedanken* oder *Begriffe*’ (again: concepts) and *Eindrücke* are two classes or species of ‘*Empfindungen* in der Seele’ (Sulzer 1755: 30).⁸ *Begriffe* are then designated as those *Empfindungen* that ‘we are conscious of when we reflect [*nachdenken*] on *Eindrücke*’ (Sulzer 1755: 30). *Begriffe* are also said to arise when the ‘capacities of the mind mimic [*nachäffen*] or copy [*abcopiren*]’ previously had ‘*Empfindungen* of the senses [*der Sinne*]’ (Sulzer 1755: 28). Hume’s claim about the origin of our ideas in copies of impressions thus becomes the claim that ‘all of our *Begriffe* or more feeble *Empfindungen* are *Abrisse* [‘outlines’] of our *Eindrücke* or lively *Empfindungen*’ (Sulzer 1755: 32). Capacities that are capable of bringing about this ‘copying’ include memory [*Gedächtnis*] and the power of imagination [*Einbildungskraft*] (Sulzer 1755: 29). The capacity for engaging with *Begriffe* and *Gedanken* themselves is again that of *Denken* (*thinking*) (Sulzer 1755: 31-32).

Given our purposes, two points concerning these translation choices are especially worth highlighting. First, we find that the term *Empfindung* is used to track the elementary stage of what initially arises in the mind or the soul due to impressions upon it, which is to say that the term covers over the distinction between the English terms ‘sensation’ and ‘perception’. By contrast, the term *Begriff* is used to track the contents of thinking, or what arises in consciousness through reflection or the act of thinking over something. Second, we find a fairly capacious use of the term *Erfahrung*. In line with the broad use of the term ‘experience’ by Locke and Hume, it denotes not only mere *Empfindung*, but also acts of *Beobachtung* and *Nachdenken* or *Überdenken*.

As we will see in the following section, Tetens’s *Versuche* goes beyond both Locke and Hume on both fronts: he not only more sharply delineates the different stages that are involved in

⁸ In fact, Sulzer uses ‘*Empfindung*’ indifferently to render both ‘perception’ and ‘sensation’.

the transition from mere sensation to thought, but also more sharply differentiates mere sensation from what merits the name of experience – not least by considering only the latter to involve acts of thinking and, more specifically, acts of reflection and representation through concepts.

Before turning to Tetens' own contrasting analysis, however, we should first attend to the exposition of the term *experientia* in several Latin texts that Tetens would have been familiar with from the Leibnizian tradition in early modern German philosophy, for many of the conceptual and terminological distinctions that Tetens himself draws upon, in departing from the simplistic empiricism he saw in Locke, Hume, and some of the French psychologists, are already present in the writings on empirical psychology by Christian Wolff and Alexander Baumgarten.

In Wolff's 1732 *Psychologia empirica*, for example, we find a sharp differentiation, first, between mere *perceptio*, as one of the initial 'acts of mind which represent' some object (§24), and *apperceptio*, which is said to consist in the mind's being conscious (*conscia*) of a perception – with Wolff noting his debt to Leibniz for the terminology (§25). According to Wolff, all thought (*cogitatio*) 'involves both perception and apperception' (§26). Sensations (*sensationes*), by contrast, are cases of mere perception (§65). Experiencing (*experiundo*) goes farther than thinking, insofar as it involves not only being conscious of things (or 'attending to that which we perceive'; §435), but also having cognition (*cognitio*) (§434).⁹ Cognition itself is achieved when we are not only 'attending to our thoughts', and not only 'noticing in what way some object is represented' in a perception, but also noticing 'what sort of a change [mutatio] occurs in the soul' (§28) – seemingly, a change due to the object which the perception represents.¹⁰

Baumgarten adopts this set of Latin terms and coordinates them with German terms in footnotes in his textbooks on logic and metaphysics. In his 1761 *Acroasis logica*, he translates *cognitio* as *Erkenntnis* (§3). Using *Erfahrung* as the German correlate for *experientia*, he defines 'experience in the broad sense' as 'clear cognition by sensations [*clara cognitio per sensationem*]'. By contrast, 'experience in the strict sense' is defined as 'cognition by immediately acquired

⁹ As Wolff puts it in his 1728 *Logica*: 'to experience [experiri] is to cognize something by attending to our perceptions [quicquid ad perceptiones nostras attenti cognoscimus]; that cognition itself which is given only through attention to our perceptions is called *experience* [experientia]' (§664).

¹⁰ Once the perception is determined for thought, by the intellect, as to the 'singular thing' that is responsible for bringing it about, it is then called an 'idea', which itself is eventually seen to 'contain images and notions of what is universal in things'; for Wolff, then, cognition ranges over both the determination of the singular thing responsible for the perception qua change in the soul (acquisition of an 'idea') as well as the determination of what is universal in the thing (acquisition of a 'notion' (§52).

sensations' (§163). In the 5th edition of Baumgarten's *Metaphysica* (1763),¹¹ we learn that sensation – rendered as *Empfindung* – is the mere “representation of my present state” (§534). It is contrasted with experience (*experientia, Erfahrung*), which consists of ‘clear cognition through sense’ (§544). Here, the adjective ‘clear’ signals that consciousness accompanies the relevant representations in the form of ‘attention’ (cf. §529).¹² In both the *Metaphysica* and the *Acroasis logica*, the term *perceptio* is translated as ‘representation’ (*Vorstellung*). An *apperceived perception* (*perceptio appercepta*), by contrast, is called a thought (*cogitatio, Gedanke*) (cf. *Acroasis* §15). A constituent of a thought is not a mere representation but a *concept* (*conceptus, Begriff*) (*Acroasis* §§16-17).¹³ Hence, insofar as experience itself involves apperceiving perceptions (sensations), it too will involve thoughts and concepts.

3. Tetens on the ‘development’ of experience from sensation

With this historical context in mind, we should be less surprised to find that Tetens himself couples his positive remarks about the contributions of the empiricists with a clear recognition of the importance of at least supplementing, if not correcting, their accounts of the mind with the more subtle analyses emerging from the Leibnizian school. This can be seen already in Tetens’ Preface to the ASP. After applauding the observational method of the British philosophers, Tetens insists upon the need to complement their findings with what can be learned from the ‘rational [raisonnirrende]’ method of the French (Bonnet, Condillac) and especially from the results uncovered by ‘the geometrical genius of the Leibniz-Wolffians’ (ASP 3-4; cf. 18). Tetens goes even further in this direction in the assessment he gives in the concluding section of the essay:

As I see it, our Leibniz has had a wider, deeper, sharper, and more correct insight into the nature of human understanding [and] its modes of thought ... than the more deliberately observational Locke. He has seen farther than the sharp-sighted Hume, than Reid, Condillac, Search, and Home. (ASP 91)

¹¹ Baumgarten began adding German glosses on the Latin terms already in the 4th edition from 1757; we have chosen the 5th edition of 1763 to show the continuity with his near-contemporary *Acroasis logica*.

¹² *Reflection* [reflexio, Überlegung] is classified by Baumgarten as a specific form of attention (§626).

¹³ This, in turn, is consonant with Georg Meier’s complete German translation of Baumgarten’s *Metaphysica* (1766) and his earlier short text on logic entitled *Auszug aus der Vernunftlehre* (1752).

As we will see in a moment, this prioritizing of Leibniz over Locke and Hume manifests itself concretely in the body of Tetens' masterwork, the *Philosophical Essays*, insofar as Tetens models his core technical terminology not on that of Locke or Hume, but on that of the Leibniz-Wolffian tradition. This prioritizing has often been overlooked, which is likely due in large part to Tetens' positive portrayal of Locke right at the start of the Preface. Here Tetens describes the method he means to pursue as nothing other than the 'observational method that Locke pursued in relation to the understanding and that our psychologists pursued in the experiential doctrine of the soul [Erfahrungs-Seelenlehre]' (PV I iii-iv). As Tetens puts it later in the *Versuche*, 'the soul is given to us not by hypotheses, but by observations' (PV I 730); 'the powers' of the human soul 'can only be cognized through their effects that they bring about in us' (PV I 730, 733).

Even so, once Tetens goes on in the Preface to elaborate upon the stages he takes to be involved in pursuing such a method, we can already begin to notice the pervasive echoes of the Leibnizian terminology:

To take the modifications of the soul such as they are cognized through self-feeling [Selbstgefühl]; to take with awareness [gewahrnehmen] and observe [beobachten] these repeated modifications with care and with alteration in circumstances, and notice [bemerken] their way of arising and the laws of effect of the powers that bring them forth; thereafter compare [vergleichen] the observations, analyze them and search out the simplest faculties and species [Arten] of effect and their relations to one another – these are the essential accomplishments of the psychological analysis of the soul, accomplishments which rest upon experiences [Erfahrungen]. (PV I iv)

In effect, Tetens is describing the 'observation' to be performed by the philosopher as a process the stages of which parallel the Leibnizian ordering of the process of the mind's development of basic cognition itself that we sketched above. But now this observation is directed at the workings of the mind itself: first, we have sensations of our mind's activity ('self-feelings'), then we take up these sensations with 'awareness', after which we come to have 'cognition' of the mental activity itself through these sensations in the sense that we form general concepts of their types (*species*) as well as propositions which express their relations to one another.

As we will see in the following section, the end of the *Versuche* further confirms Tetens's application of Leibnizian distinctions to the stages of reflective-philosophical cognition of the mind's own workings. In the early parts, however, Tetens's text primarily aims to give an account not of reflective-philosophical cognition but of ordinary, day-to-day sensory cognition, including the kind that Tetens himself calls 'experience'.

The fact that Tetens is Leibnizian rather than Lockean or Humean about the nature of experience becomes readily apparent in these early parts of the *Essays* as well. Tetens here proceeds to articulate a series of stages in the 'development' of what happens in the soul on the road to experience that parallels quite closely the one identified by the Leibniz-Wolffian system sketched above. In broad outlines: First, Tetens takes up the general idea of a *representation* (Essay 1). He then focuses specifically on how representations arise in relation to *sensation* (Essay 2). This leads to an analysis of what further is required for the *consciousness* (viz. *apperception*) of representations of sensation – in Tetens' preferred terms, for *becoming aware* of them (Essay 3). Only at this point does Tetens introduce the topic of what it means to *think* or (better) *cognize* something objectively on the basis of this awareness (Essay 4). And it is only much later, under the heading of 'sensory cognition and the faculty of thinking active within it' (PV I 426), that he finally takes up the topic of *experience* itself (Essay 6; cf. PV I 429 ff.).

If this already places Tetens, on the whole, on the side of the Leibnizians, there is at least one point, however, on which Tetens might be thought to incorporate something of a more Humean tenor. This is because Tetens revises the Leibniz-Wolff scheme at its very first stage by incorporating the distinction between sensation *per se* (qua mere impression) and its representation (viz. idea). This revision comes in two steps. First, whereas, for Leibniz and Wolff, the term 'representation' (as a correlate of *perceptio*) ranges over 'every modification of our soul' (PV I 8), Tetens thinks this usage stretches the term beyond its common significance. Accordingly, he restricts the use of the term to 'those modifications in us from which another thing can be immediately cognized *by us*' (PV I 11). Even if the Leibnizians are correct in thinking that every single effect in us mirrors or corresponds to something real (namely: its cause), we humans are not immediately in a position to cognize every single thing (cause) that is so mirrored, simply by the

presence in us of the relevant effect.¹⁴ Some modifications in us are nothing for us in the sense of meaning anything for us proto-cognitively, but are simply that: modifications.

Second, Tetens insists that the first genuine representations in us – the first modifications in us that mean something for us – are actually representations *of other modifications in us* that have already occurred. When such modifications leave “traces [*Spuren*]” in us, our soul is then able to take up these traces, or “drawings [*Zeichnungen*]” of the previous modifications, so as to bring about representations of these earlier modifications (PV I 16).

These ‘original basic representations [ursprünglichen Grundvorstellungen]’ constitute the basis on which all other representations are developed (PV I 17). More specifically, Tetens thinks that these ‘original representations arise in us of our alterations and states, when the latter are presently occurrent in us, and become felt and sensed [gefühl und empfunden]’; these ‘felt’ or ‘sensed’ alterations or modifications are ‘sensations’ (PV I 22). The sensation itself (the modification that is sensed) is to be distinguished, however, from the representation which arises due to the sensing of the modification. That is, *sensations* themselves are thus not technically the first original representations; a sensation, rather, is what is represented by these first representations, which Tetens accordingly calls ‘representations of sensation [Empfindungsvorstellungen]’ (PV I 23).

However, the capacity for producing representations, which Tetens, in accord with the Leibnizians, also names *Perceptionsvermögen* (PV I 26), is not limited to simply the taking up or apprehending of sensations,¹⁵ as it can also reproduce previous representations (*Wiedervorstellung*; PV I 24) and ‘combine representations themselves into new wholes (PV I 127). The reproductive power is what Tetens calls ‘the power of imagination [Einbildungskraft]’, whereas the creative ‘self-active’ power is called ‘fantasy [Fantasie]’ or the ‘fictive power [Dichtkraft]’ (cf. PV I 24, 115, 154-61).

¹⁴ Tetens provides evidence from Wolff’s *Psychologia rationalis* (§195) for the claim / view that Wolff implicitly concedes this very point, as the latter here introduces a further differentiation among representations (perceptions), such that only those which ‘are related to their objects without requiring an intermediary inference’ count as ‘immediately representing’ objects, whereas others require ‘reasoning’ to do so (cf. PV I 10-11).

¹⁵ Tetens calls this power the *facultas percipiendi* (cf. PV I 26) and considers it merely to consist in an initial ‘taking up’ (‘per-cipere’) that does not imply any involvement of consciousness. We note this here to begin to head off a potential terminological confusion (see, e.g., Beck 1969: 422), given the now common practice of using ‘perception’ to translate *Wahrnehmung* (e.g., in the Cambridge Edition of Kant’s works). For both Tetens and Kant, however, the latter term refers to the distinct act of ‘taking up *with awareness* [Gewahmehmen]’, and so is something which does involve consciousness. On this, see Tolley 2016.

Taking the foregoing together, then, we can see Tetens actually signaling a twofold appreciation of Hume's attempt to take up a question that the Leibnizians seemed to take for granted. First, Tetens agrees with Hume on the necessity of accounting for the origin of representations themselves (that is, of 'ideas' understood as Leibnizian *perceptiones*), insofar as they seem to arise out of more elementary non-representational yet still mental occurrences. Second, Tetens also stands close to Hume in considering the imagination to be involved in the transformation of mere sensations into representations.¹⁶

With this important clarification in hand, however, we can see that the remaining structural differentiation in Tetens' account of the development from sensation to cognition remains quite close to the Leibnizian analysis discussed above. For even though Tetens insists that representation is something over and above mere sensation, he agrees with the Leibnizians that having a representation does not yet suffice for *consciousness* of this representation, let alone for any sort of *cognition*. As regards the first point, Tetens criticizes Bonnet and Condillac for failing to recognize the important difference in kind between, on the one hand, mere sensing and feeling and, on the other, acts of the understanding (*Verstand*) such as becoming conscious (*Bewußtwerden*), apperception, and thinking (PV I 7). It is only once we have consciousness of a representation – or the 'taking up with awareness [Gewahrnehmen]', of these representations (PV I 26, 96), a step which Tetens also considers to involve 'apperception' (PV I 97-98) – that we have what Tetens refers to as an idea (*Idee*) or thought (*Gedanke*) (PV I 26, 96).¹⁷ According to Tetens, moreover, consciousness brings with it a 'distinguishing of one image from another' (PV I 96, cf. 26, 273). This act of distinguishing gives rise to concepts (*Begriffe*) (PV I 135), takes the form of judgments (*Urteile*) (PV I 26), and is a prerequisite for the most elementary form of cognizing (*erkennen*) (PV I 97-98, 295, 298).

Thus, Tetens agrees with the Leibnizians, against Hume and Locke as their views are transmitted through the German translations (cf. §2 above), that it is only once all three powers of the soul (sensation, representation, and consciousness) are involved that the latter has arrived at the threshold of experience (*Erfahrung*). Whereas Locke and Hume seemed willing to let

¹⁶ Some of Tetens' attention to the level of mere impression, prior even to representation (*perceptio*), is surely also motivated by his reading of the proto-physiological psychology developed by Bonnet, an author who receives by far the most of Tetens' attention in the Preface to the PV.

¹⁷ This implies that, along with Leibniz and others, Tetens accepts that there are representations (including sensations) in us 'without consciousness' of them (PV I 265). This lack of consciousness can obtain even of certain higher or more complicated acts of the imagination.

‘experience’ range over the mere having of a sensation, for Tetens, “the word ‘experience’, as it commonly occurs, is only used for the cognition of things (*Erkenntnis der Sachen*)” (PV I 429). For this reason, neither sensation, nor the mere representation of sensation, nor even the conscious judging of representations (of sensations) themselves amounts to experience in the sense of the cognition of things distinct from one’s own mental events.

To clarify this point, Tetens introduces the idea of pure experience (*reine Erfahrung*) (PV I 429). Pure experience is ‘pure’ in the sense that it is elementary, i.e., does not involve any additional alteration by imagination or fantasy, nor any further development through reasoning.¹⁸ More specifically, pure experience is ‘the action of the power of thinking that judges on the basis of [durch] sensation, or rather, that determines something on the basis of the representation of sensation of the object that is presently there in us [gegenwärtig vorhanden]’, and that ‘holds things to be as they are’ rather than ‘as they appear to be in individual observations’ (PV I 429). It is these pure or elementary experiences – and not mere sensations nor even representations of them – that, in turn, ‘constitute the pure and fixed material [Stoff] of *all* the cognitions [Kenntnisse] we can have of actual things [wirklichen Dingen]’ (PV I 430; emphasis added).

4. Tetens on ‘observation’ as a philosophical methodology

In the previous section, we saw that Tetens, largely drawing on his Wolffian predecessors, envisions a suite of mental activities that develop from sensation, through representation and consciousness, into experience as sensory cognition – thereby rejecting the tendency, present in the translations of Locke’s and Hume’s work, and perhaps in the originals themselves, to take sensation *itself* to be already a kind of experience. What we now want to turn to, however, is a key difference between Tetens and the Leibnizians as regards their *method* of presenting these distinctions and, correspondingly, a key continuity that Tetens sees between his own approach and the ‘observational’ method represented by Locke that he repeatedly praises.

Tetens’ critical distance from the Wolffian-Leibnizian approach is of a piece with his post-Humean rejection of the so-called ‘mathematical’ method of presentation that had been favored by Wolff and Baumgarten. As Tetens notes already in the ASP, such a method is well-suited only to ‘already familiar and established sciences’, so as to ‘fix the methods and plan’ according to which

¹⁸ So, to prevent misunderstanding: for Tetens, an experience is ‘pure’ not in Kant’s sense, i.e., devoid of sensation (cf. B74), but rather in the sense of being unmixed with any higher acts of the soul. (For this reason, perhaps ‘mere experience’ would be a better rendering.)

they could be seen as a ‘system’ (ASP 89). With respect to psychology, considered as the (putative) science of human understanding and the cognitions it produces, Tetens thought that Hume convincingly cast doubt on the idea that we already have on hand anything like a genuinely established science that is simply in need of systematization. For this reason, Tetens thinks that we need to complement, and ideally precede, any putative systematic presentation of such psychological concepts with a philosophical presentation of the source of these concepts in psychical realities themselves. This must happen according to what Tetens calls the ‘synthetic’ method, which is one that shows, by a kind of ostension within inner ‘observation’, how more complex kinds of psychical realities developmentally arise out of more elementary ones (ASP 84).¹⁹

As regards its basic ambitions, if not in its ultimate execution, Tetens considered this synthetic method to be modeled not on Wolff or Baumgarten, but on Locke’s *Essay*. In ASP, Tetens claims explicitly that, in order to provide the ‘proof’ of the objective validity of elementary concepts and propositions that is rightfully demanded by Hume, one must ‘go back along the path down which Locke has already traveled, namely, to the investigation of the understanding, its mode of acting, and its universal concepts’ (ASP 35). What Tetens thinks has actually been provided by Locke, however, is not really the proof itself, but rather ‘the criterion [Kennzeichen] by which what is real, what has objects corresponding to them, can be recognized on the basis of what are merely appearances and so one-sided representations’ (ASP 35). As he puts it later in this essay, Locke ‘has led the way, with the torch of observation in hand’, to the present project, which consists of ‘seeking out the sensations out of which the universal notions have been drawn’ (ASP 72). Such a method contrasts with that of the textbooks of the Leibnizians, which, at least as far as Tetens reads them, usually *presuppose* or *ignore* the genesis of universal notions.

Here again, however, Tetens does take the Locke-Hume model to itself need some modifications. More specifically, he insists on the need to present the development from sensation to concepts (‘notions’) in such a way that ‘distinguishes these [i.e., concepts] more precisely than Locke has done from the effects of our creative power of fiction [Dichtkraft]’ (ASP 72). And though he notes that Hume had demonstrated the need for more precision on this point in his *Enquiry*, Tetens thinks that Hume was unable to ‘overcome the many difficulties that have been

¹⁹ Compare Kant’s later remarks in the *Prolegomena* about the ‘synthetic method [Lehrart]’ of the first *Critique* itself, in which ‘the science [of reason] places before the eyes [vor Augen stelle] all of its articulations, as the structure of the elements [Gliederbau] of a quite peculiar faculty of cognition, in their natural connection’ (4:263).

found' in Locke's account (ASP 73; cf. 76).²⁰ Regarding basic ontological concepts like 'substance' and 'cause/effect', Tetens agrees with Hume that their content could never be discovered merely by citing various sensations. Against Hume's attempt to root such content in the workings of the *imagination*, however, Tetens takes the non-sensory content of these traditional ontological concepts to be supplied by the *understanding* itself, insofar as its activity consists in the processing (*Verarbeitung*) of sensations into something else, rather than merely abstracting contents from them (ASP 50).²¹ Concepts of 'actuality' and 'substance' are of 'the universal which, in separation from everything particular that our fantasy [Phantasie] might make of it, contains *nothing* that depends on the properties of inner or outer sensations' (ASP 56; our ital.). It is thus only 'the understanding in its purity' - i.e., in its independence from sensation - that is capable of supplying the concepts and principles of ontology (ASP 57). This is because 'the fundamental science should contain the *universal principles* according to which we judge and infer about *all* things in general, about *all genera of actual beings*, about spirits and bodies, about the immaterial and the material, about the infinite and the finite' (ASP 51).²²

Strikingly, Tetens takes this also to rule out the idea that *experience* might serve as the source for these concepts. As he puts it in the later PV, '[w]e must first of all discard the thought that the *universal necessary principles* are *abstractions from experiences* [*Erfahrungen*]; 'individual examples can make such universal principles intelligible, and illuminate them, but the insight that they are universal principles does not depend on induction' (PV I 466). Rather, 'the correctness of the general propositions rests on universal concepts and on the power of thought's mode of operating' (PV I 468-9).

Hence, though he agrees with Locke and especially Hume that, in order to clarify the genuine content of our fundamental concepts, we must 'attend' to how concepts or ideas arise

²⁰ Later on, Tetens adds Lambert to the list of those who failed to successfully demonstrate, in response to Hume, that the relevant concepts aren't ultimately just 'confused semblances of understanding [Verstandesscheine]' (cf. ASP 83-84).

²¹ In fact, Tetens takes this intellectual content to be equally present in 'dreams' as in 'true thoughts', due to how 'the power of thought processes sensations into representations of objects' (ASP 50). Compare Essay 4 for Tetens' rejection of the 'Humean explanation' of concepts such as cause and effect as arising merely through 'connection...in the association of the power of imagination' (PV I 312-316).

²² As Tetens understands it, what had gone under the name of ontology should be viewed as the science of the most generic commonalities, which are represented through what Tetens calls 'transcendent' concepts. Because these concepts are meant to be absolutely generic, ontology itself cannot be seen as a theory about any particular thing or subset of things, but is rather 'about' everything in general: it is 'nothing but a general theory that in itself has no actual thing as an object'; in this respect, it is like the 'analysis of the mathematician' (ASP 18, cf. 39-40).

from how the mind ‘reworks [umarbeitet] sensations into representations’ (ASP 38), Tetens stridently denies that the content of concepts like that of causal connection ultimately depend on any particular sensation, act of imagination, or even experience to serve as the basis for their abstraction or induction, claiming instead that they arise solely from ‘an inner self-activity of the *understanding*’ (PV I 320).²⁴ Indeed, Tetens himself sees this unmooring of the content-generation of the understanding from that of the senses as of a piece with Leibniz’s revision of ‘the Aristotelian rule’ that ‘nothing is in the intellect which was not first in the senses’ by the addition of: ‘except the intellect itself’ (cf. PV I 336-7).

Yet though Tetens shares this key commitment to an ultimately non-empirical source of the basic concepts of ontology with Leibniz, he thinks that even the latter failed to adequately justify his presumption of the objective validity of these concepts, or sufficiently demonstrate their applicability to our experiences or observations of the activities of the mind itself. In Tetens’ words, while Leibniz excels in ‘*forming* true and real concepts’, he does little to ‘*prove* their reality’ (ASP 92; my italics): ‘When Clarke demanded a proof from him [Leibniz] of his principle of sufficient reason, he answered only that it is an axiom of reason [Axiom der Vernunft] to which no instance can be opposed, but that he knew of nothing further that would furnish support for this last assertion’ (ASP 92-93).²⁵

What Tetens himself can be seen as attempting to achieve in his *Versuche*, then, is a two-step project. First, he takes up the prima facie insightful psychological distinctions he finds in the Leibniz-Wolffian school and then use the Lockean synthetic-developmental procedure to let his readers ‘observe’ for themselves that many of the concepts systematically presented in the Leibnizian metaphysics textbooks do in fact have their origin within the workings specifically of the power of thought itself. Second, Tetens thinks he can use this origin-story to also secure that these basic concepts do in fact correspond to some ‘reality’ (cf. ASP 27 ff.).

What the first step in the ‘observational’ method presupposes, however, is that the *psychological* concepts that the Leibniz-Wolffians make use of to articulate the nature of the soul and its powers – and in particular, the concept of power itself, in relation to the power of thought – are concepts that themselves have objective validity, at least within the reality of the mind. Thus,

²⁴ This partially anticipates Kant’s later strategy in the so-called ‘metaphysical deduction’ of the categories from acts of judgment by the understanding; cf. Beck 1969: 420.

²⁵ This sensitivity to the need for ‘proof’ of the ‘reality’ of ontological concepts partially anticipates Kant’s ‘transcendental deduction’ of the objective validity of the pure concepts of the understanding. Cf. Allison 2015: 145; De Vleeschauwer 1934.

the primary ‘observations’ that Tetens starts with in the *Versuche* are of the real unfolding of acts of the soul, which thereby have the function of making, e.g., the ‘nature of representation familiar’; on this basis, Tetens sets forth a ‘series of propositions from experience [Erfahrungs-Sätzen]’, expressing ‘immediate observations and immediate consequences of these’, concerning what representations are like (PV I 12). Though subject to certain deceptions (*Blendwerke*), this sort of observation is a kind of inner experience, based on ‘inner sense’, that can be honed and trained through the ‘repetition of the same observation’ in ‘various circumstances’ (PV I xvii). When well-trained, a subject can distinguish an observation of ‘what is actually sensation’ from a deception due to what is merely ‘invented [gedichtet]’ (PV I xvii). Observation in this sense is Tetens’ name for the elementary access we have to representations merely insofar as they ‘are in us, in the thinking person’.²⁶

With respect to the specific mental act of judging, for example, Tetens acknowledges the need for observation in order to form the very *concept* of judgment:

If a concept of this act of understanding, or of its effect, is to be attained, then it must happen in the same way as those of other accomplishments, alterations, activities, and powers of the soul. The act of thinking and of judging must be felt and sensed in its immediately suffered and persisting effects; and this felt modification has its residual sensation [Nachempfindung], and leaves behind its reproducible trace. Here is the representation, and therefore the material of the idea of the thought that, when isolated, perceived, and distinguished, becomes an idea of the relational-thought [i.e., judgment]. . . . Therefore, as experience teaches, it is also impossible to furnish someone with [beizubringen] a concept of an actual connection of things who has never thought of such a connection beforehand, who has never sensed and reproduced this thought. (PV I 339)

On the one hand, the progression that Tetens telescopes in this paragraph broadly mirrors that of the Leibnizians: he moves from the sensation of a judging, to its representation, and eventually to

²⁶ Since, on his account, we can immediately become conscious of them and learn to compare and distinguish them, observation does not rest on scientific investigations of, e.g., our ‘nerve fibers’, which might also pertain to representations. (PV I 19).

the concept ('idea') of a judgment.²⁷ On the other hand, his basic thesis about psychological concept-formation ultimately bears much closer resemblance to a form of empiricism, insofar as he claims that the formation and possession of the real concept of judgment depends on having an inner sensation and, consequently, an inner experience or *observation* of an actual act of judging itself. Whether or not this seemingly sensation-based account of the origin of our psychological concept of judging can ultimately be made consistent with the earlier idea that reflection on the activity of the power of thought itself will demonstrate the non-sensory origin of other ontological concepts, as arising from acts of judging, is something we take up in the concluding section below.

5. Conclusion: Tetens and the proto-Kantian synthesis of empiricism and rationalism

In his attempt to synthesize the position represented by Locke and Hume with the one represented by Leibniz and Wolff, Tetens embraced a turn toward experience along several respects. First, Tetens accepted the importance of the division in the Latin textbooks of the Leibniz-Wolffians between sensation as mere representation or perception and, on the other hand, experience as involving both apperception and cognition. Accordingly, he contributed to the regularization of the distinctiveness of experience within German philosophy. Along the same lines, we have seen that Tetens rejected the lack of this distinction in the British empiricists (at least as they were translated), according to which 'experience' can range over both mere sensations (impressions) and more complex acts that involves concepts, reflection, and so on.

²⁷ Much later in the second volume of PV (Essay 13), we find further confirmation of the view that Tetens considers this higher-level or reflective cognition on the part of the philosopher to itself take place according to a series that parallels that of ordinary 'experience'. Here Tetens goes into a bit more detail in his description of this reflective process. In general, he writes, 'we cognize our sensing, our representing, our thinking, willing, and so on, insofar as we ourselves make ideas [Ideen] of these operations and compare and distinguish them by means of these ideas in the same way that we do so with the ideas of the effects and powers of physical things' (PV II.152). The first step in forming these ideas is for us to have 'elementary *modifications*' that our soul effects upon itself by its own acts; we then sense [empfinden] these modifications by means of what Tetens calls 'self-feeling [Selbst-Gefühl]' (PV II.154). As was seen above, it is only when sufficiently 'persisting traces' are left by sensations of these acts that we 'take up *representations* of our soul's accomplishments' from them (PV II.154), representations which in turn serve as the basis for the comparison, abstraction, and generalization by means of which we form *concepts (Ideen)* of these very same acts - and are thereby able to 'cognize' them (PV II.152). Strikingly, Tetens here draws the proto-Kantian inference that, just as in the case of outer cognition of bodies, so too our cognition of the soul's acts are always mediated by sensations and representations of such acts, such that 'our representations of the soul and its alterations ... are merely appearances [Scheine]' or 'phenomena [Phänomene] before us', rather than identical with the (real) acts themselves (PV II.152).

Secondly, Tetens nevertheless sides with empiricism on the necessity of an appeal to what can be ‘observed’ in the mind as arising through its own activities in relation to sensations, in order to justify the validity or ‘reality’ of the fundamental principles and concepts, first in psychology (and the science of human nature more generally), and ultimately in ontology. To be sure, this last point of sympathy is complicated, first, by the fact that Tetens also means to embrace a broadly Leibnizian account of the genesis of the contents of the elementary concepts and principles of ontology, according to which the content of such concepts and principles is, at least in principle, grounded only in the capacity for thinking itself, and not in the senses or even experiences. Second, Tetens also sides with the Leibnizians in denying that the power for thought can be reduced to the senses, the power of representation or, by extension, the power of imagination.²⁸

How are, then, we to understand that basic psychological concepts, on the one hand, are acquired only through inner sensation and have objective validity only insofar as they can be applied in inner observation, but, on the other hand, do not depend for their content on sensation and experience, but only on the power of thinking itself? At this point, of course, we have reached one of the central difficulties that is taken up in earnest a few years later in Kant’s first *Critique*, namely, that whereas all cognition might ‘begin with’ experience, not all cognition ultimately ‘arises from’ experience, as Kant puts it in the tantalizing first sentence of the second edition (B1) – which suggests the possibility of just the sort of non-empirical cognition that Tetens seemed to be angling for.

In fact, a closer look at Kant’s own analysis of experience itself illuminates in several respects Tetens’ earlier attempted synthesis of Locke and Leibniz. Lewis White Beck has famously suggested that, in this first sentence, Kant works with two conceptions of experience – one ‘Lockean’ (L-experience) and one ‘Kantian’ (K-experience): while L-experience is merely the ‘raw material of sensible impressions’, K-experience is ‘knowledge of objects’ or whatever ‘coincide[s] with the phenomenally real’ (Beck 1978: 40-41). We hold, by contrast, that experience for Kant has a quite uniform meaning, one that, in fact, mirrors fairly closely Tetens’ own account in the

²⁸ Caimi (2008: 49) claims that Tetens ‘considered that understanding and imagination are identical or, at least ... can be transformed into the other’, and he sees this as an anticipation of Kant. This position seems hard to square with Tetens’ rejection (noted above) of Bonnet and Condillac’s commitment to just this kind of continuity. Moreover, we think that it misrepresents Kant’s own view on the relation of the imagination and the understanding as well (compare Tolley 2019). The centrality of images and the imagination to Kant’s account of perception is convincingly outlined in Matherne 2015, and see Tracz forthcoming for an account of the general difference between intuition and image (*Bild*, *Einbildung*) in Kant’s theory of representation.

Versuche. For Kant, too, experience is never a mere state of sensation, but always involves a number of psychological components supplied by the understanding. What is more, for Kant experience always comes about in a number of stages very much akin to the ones distinguished in Tetens' Leibnizian-inspired account: beyond (i) mere sensation, experience presupposes (ii) representation and imagination, (iii) consciousness, apperception, and perception, and ultimately (iv) concepts and cognition.²⁹ Collectively, these different powers are responsible for 'processing [verarbeiten] the raw material of sensible impressions' into 'experience' - the first (albeit cumulative) result of the 'activity of our understanding' being 'set into motion', and the first instance of cognition that we attain (B1).³⁰

To be sure, Kant's own solution to the problem as to how the insights of the Lockean and the Leibnizians could be synthesized in such a way so as to make room for non-empirical cognition introduces further distinctions, ones that might only have been darkly glimpsed by Tetens, if he touched upon them at all. Perhaps most notably, Tetens does not single out anything akin to Kant's *pure* form of sensibility and, perhaps even more importantly, Kant's *pure* consciousness (apperception) - more important for the above purposes, insofar as pure consciousness promises to provide a specifically non-empirical means by which to apprehend the activity of the power of thinking itself (B157), as well as the

²⁹ These parallels are perhaps most pronounced at the outset of Kant's account of the Transcendental Deduction, in his account of the 'subjective sources' of 'experience' as our (temporally) first 'cognition in the proper sense' (A94, B147; cf. A77/B103 ff., A155/B194, as well as A320/B376). For a more developed 'progressive' account of the place of experience as empirical cognition within Kant's transcendental psychology, see Tolley (2017); compare Watkins and Willaschek 2016 for additional discussion of Kant's account of cognition.

³⁰ This is the sense in which we see Kant as claiming that cognition 'begins with' experience (it is the first instance of cognition in the developmental processing of the mind), not that 'experience' is here meant as something that occurs prior to cognition (as in Beck's 'L-experience'). This interpretation of Kant's use of 'Erfahrung' also speaks against a contrasting neo-Kantian line of interpretation, according to which experience in Kant's work is a far more epistemically demanding mental state, one that is roughly equivalent to the knowledge of nature provided in an ideal science, with there being 'one' complete experience in which all veridical perceptions are connected together according to empirical laws. For instance, Nick Stang claims that in Kant's technical notion of the term, experience means 'something stronger than just any perceptual episode with objective purport', which he labels this 'Strong Experience' (2012: 1130). Compare Friedman 2001. For a more pessimistic reading according to which Kant simply did not make any consistent technical use of the term 'experience', see Van Cleve (1999: 47), who proposes that Kant might have used the term 'experience' in as many as eight different senses.

Beyond Kant's overlap with Tetens on the conception of experience itself, Kant also can be seen as adopting key elements of Tetens' methodology of 'observation' at several steps in his own system. For example, in his *Anthropology*, Kant claims that '[t]o observe [beobachten] the various acts of power of representation in myself, when I summon them, is indeed worth reflection; it is necessary and useful for logic and metaphysics' (7:133). The *Anthropology* itself embraces this methodology explicitly, which is said to depend on not just the 'consciousness of oneself' but the 'observation of oneself [Beobachten seiner selbst]' (7:127, 132).

concepts that have this power as their ‘birthplace’ (B90). Nevertheless, even the aforementioned points of overlap already testify to the significance of the fact that, as Johann Georg Hamann wrote to Herder in 1779, Kant had Tetens’ *Versuche* open on his desk continuously during the final years of preparing of the *Critique*.³³

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³³ Cf. Kuehn 1989: 366.

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