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# The soul as the 'guiding idea' of psychology: Kant on scientific psychology, systematicity, and the idea of the soul

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#### 1. Introduction

Whilst Kant's fascination with the ground-breaking results of Newtonian physics is well-known, his interests in the sciences extend far beyond that and include "natural" phenomena as diverse as biological organisms, historical processes, social behaviour and mental deficiencies and illnesses. Yet for such phenomena it is far less clear how his conception of experience — that is, paradigmatically, empirical cognition of spatiotemporal, material objects that move in space according to the Newtonian laws of motion — can be applied; and hence, whether the theory of science that he derives from this conception can in fact ground such sciences as biology, history, anthropology, and psychology.

Kant's critical comments on empirical psychology have often been taken to deny psychology a scientific status altogether. Empirical psychology — as it is conceived in Kant's time — primarily aims at an account of mental phenomena such as perception, cognition, desire, feeling, emotion, and intention for action. Due to their special character, such as their non-spatiality and their privacy, it seems that mental states cannot be as easily cognized as physical states of material bodies and do not lend themselves to scientific investigations in the same way. In the *Metaphysical* 

https://doi.org/10.1016/j.shpsa.2017.11.010 0039-3681/© 2018 Elsevier Ltd. All rights reserved. Foundations of Natural Science, Kant considers three reasons against psychology being a science properly so-called (see 4:471).<sup>2</sup>

Firstly, psychology cannot give a rich enough mathematical description of its subject matter, since mental states are only given along one dimension, viz. time, but do not instantiate the geometrical laws of three-dimensional space. Secondly, psychological examinations lack the objectivity that is required for a science, since the mental states under investigation cannot be reproduced or experimentally manipulated in a subjectindependent manner and may even change upon observation. Moreover, thirdly, psychology lacks a priori principles — such as the metaphysical foundations of Newtonian physics - that would provide an apodictically necessary basis from which psychological laws could be derived.<sup>3</sup> According to the standard interpretation of his critical remarks in the Foundations, these reasons induce Kant to accept, if anything, only a "natural history of the soul", rather than a systematic body of psychological cognitions that could qualify as a science (4:471).4

These three negative considerations, which cast doubts on psychology's scientific status, have been shown — on grounds that Kant himself could agree with — *not* to fully rule out an account of scientific psychology in a somewhat weaker sense of science. Two recent attempts to rescue (some parts of) psychology on Kantian grounds have focused on its connection with Kant's considerations regarding action-explanation. On the one hand, Patrick Frierson has reconstructed Kant's empirical psychology in terms of an

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<sup>&</sup>lt;sup>2</sup> All translations of Kant's texts are according to the *Cambridge Edition of the Works of Immanuel Kant* (Kant, 1992ff), if not stated otherwise. Reference to Kant's works follows the Prussian Academy edition (Kant, 1900ff.), giving volume and page, and in particular for the *Critique of Pure Reason*, the standard A/B-pagination for the Editions from 1781 and 1787, respectively.

<sup>&</sup>lt;sup>3</sup> This third issue is not explicitly mentioned, but the context in which the discussion of psychology in the *Foundations* takes place indicates this issue as a consequence of the first point.

<sup>&</sup>lt;sup>4</sup> Pollok (2001); Westphal (2004); Friedman (2013).

<sup>&</sup>lt;sup>5</sup> See Frierson (2014), pp.1–52, Hatfield (2006); on mathematizability, see Nayak and Sotnak (1995), Kraus (2013). Sturm (2001, 2009) argues that these negative considerations are directed specifically against a purely introspectionist conception of psychology that was adopted by philosophers of the rationalist tradition such as Wolff (1732) and Baumgarten (1982/1739), but that they do *not* necessarily exclude other conceptions of psychology.

introspection-based *theoretical* science that explains human thought *and* action by means of efficient-causal laws of nature. Even though this *reconstruction account* concedes certain differences from the proper natural sciences due to the specific character of psychology's subject matter, it assumes that in psychology an empirical object, viz. the empirical self, can be assumed to appear in inner sense and be cognized according to causal laws from the *perspective of theoretical cognition*.<sup>6</sup>

On the other hand, Thomas Sturm has argued that, in virtue of fierce criticisms of psychology's methodology, Kant fundamentally transforms his conception of psychology by integrating it with the more comprehensive science of the human being, viz. pragmatic anthropology. According to this transformation account, empirical psychology is no longer viewed as a theoretical science in its own right, but rather certain empirical-psychological cognitions are seen as supplementary for a more comprehensive pragmatic science – namely those psychological cognitions that are needed to account for human agency from the perspective of practical cognition and with a view to its usefulness for improving human conduct in the world. In consequence, psychological cognition is assumed to rely not primarily on methods of introspection, but on "external" observations of human actions in social settings and on a background theory concerning rational and social aspects of human being.

Whilst I agree with the reconstruction account (against a transformation account) that Kant's conception of empirical psychology deserves to be rescued as a theoretical science in its own right, I think that this account lacks an adequate justification of psychology's domain and purpose. I side with the transformation account on the issue that a major (external) purpose of empirical psychology is to supplement pragmatic anthropology; however, I argue that it can serve this purpose only if it is recognized as a systematic body of theoretical psychological cognition in its own right. My approach differs from most other accounts in that I do not think that any such rescue attempt must aim to refute Kant's methodological worries about psychology in the *Foundations* and elsewhere. Rather, I think that the focus should be on an analysis of scientific systematicity, which provides useful conceptual tools for such a rescue.<sup>8</sup>

This paper argues that - given Kant's broader views of the systematic sciences of nature that include both "proper" (e.g., physics) and "improper" natural sciences (e.g., chemistry and biology) - psychology displays a sufficient degree of systematicity to qualify as a self-contained improper natural science, which primarily concerns human *mental* life, rather than human action. Instead of rebutting the commonly accepted methodological critique, this paper focuses more constructively on the principles of systematicity that underlie a science and that outline its subject matter, methods and purposes. Starting with Kant's general definition of science as a system unified "under one idea" (A832/B861), I argue that the transcendental idea of the soul, if understood appropriately, is that idea that is needed to turn our inner experience of mental states into a systematic body of psychological cognition.<sup>10</sup> Central to this interpretation is the thesis that, firstly, the idea of the soul delineates the domain of empirical psychology by defining a projected whole that is required for cognizing mental states - such states as are to be examined in psychology. Secondly, the idea gives internal structure to psychology by pursuing the systematic unification of psychological laws. In consequence, by approaching the object of psychology from the perspective of the self-conscious subject, who - in virtue of being capable of inner experience - first constitutes the psychological reality to be grasped in the corresponding science, Kant's conception of empirical psychology escapes two major risks: it neither speculatively claims the existence of the soul as some sort of (empirical or noumenal) substance, nor succumbs to a reductionist programme such as materialism or behaviourism.

First, I introduce the relevant roles that principles of systematicity play in Kant's general theory of science ( $\S 1$ ). Then I turn to the transcendental idea of the soul that is characterized as the "guiding thread of inner experience" (A672/B700) and discuss how it contributes to systematization at different levels: at the level of inner experience ( $\S 2$ ), and at the level of psychological cognition ( $\S 3$ ). Finally, I point out the specific, irreducible role of psychology within the system of sciences, despite certain qualifications regarding its scientific status ( $\S 4$ ).

## 2. Kant's philosophy of science: systematicity and the guiding ideas of a science

Kant argues that, in order for a set of cognitions to count as scientific, they must constitute a system and be unified "under one idea" (e.g., A832/B861; 4:265). Thus, cognition requires principles of systematicity, which according to the *Critique of Pure Reason* fall into the domain of reason: principles of reason do not directly determine objects of experience, but regulatively guide the deliverances of the understanding to give them coherence and unity. They guide the combination of cognitions into a unified whole that is defined by an idea of reason. In doing so, they provide rules for determining those

<sup>&</sup>lt;sup>6</sup> See Frierson, 2014, pp.9–34. Frierson considers empirical psychology in relation to pragmatic anthropology, but thinks that the contrast between them is mainly "artificial" (p.54). They vary slightly in scope and purpose, but much of what Kant discusses in the *Anthropology* can be taken to concern the subject matter (and methodology) of empirical psychology. Frierson defends psychology against the impossibility claim and regards it as "a systematic natural doctrine but not a strict science" (p.34), but he does not discuss in detail in which sense it is "systematic" and may qualify as "scientific" in light of Kant's general theory of science.

<sup>&</sup>lt;sup>7</sup> See Sturm, 2009, esp. 367–529. Sturm argues that pragmatic anthropology includes a "systematic theory of psychic determinants of human agency" (p.365, 370), such as passions, motivations and intentions, which are to a certain extent suitable for empirical-causal explanation. Sturm takes Kant to deny an "introspective psychology as natural science", but to allow for an "empirical science of human thought, feeling, and desire" embedded in pragmatic anthropology and directed at an explanation of human agency (p.50).

<sup>&</sup>lt;sup>8</sup> Sturm (2009, pp.135–181) provides a helpful analysis of scientific systematicity, which I consider below.

<sup>&</sup>lt;sup>9</sup> In general, a "natural science" for Kant is a theoretical causal science that concerns (some domain of) nature. A natural science "properly so-called" (eigentlich) fulfils all criteria of scientificity, such as apodictic certainty, complete mathematical description, having causal natural laws, and experimental reproducibility, and treats its objects "wholly according to a priori principles" (4:468). Yet he also concedes the existence of natural sciences "improperly so-called" (uneigentlich) that are in some sense deficient, but nonetheless display a certain level of systematicity and contain "laws of experience", which make them impure and therefore improper (4:468). Kant also employs the term "science" in a broader sense, including mathematics, philosophy and pragmatic sciences.

<sup>&</sup>lt;sup>10</sup> The regulative idea of the soul is often ignored in interpretations of Kant's psychology. Exceptions include Klemme (1996, pp.229–234), Allison (2004, pp.441–443), Serck-Hanssen (2011), and Dyck (2014, pp.199–225). Yet none of them takes the idea of the soul to be foundational for the *scientific* status of *empirical* psychology. Its role remains unnoted by Frierson (2014) and is marginalized by Sturm (2009, pp. 254–255, fn.87).

<sup>&</sup>lt;sup>11</sup> In the *Critique of Judgment*, Kant assigns the task of systematization to the reflective power of judgment. Unlike those commentators who consider this as a fundamental revision of Kant's views (e.g., Guyer, 1990), I follow those who view this as a further refinement of Kant's original position. Accordingly, reflective judgment executes the task of systematizing cognitions — a task that is still demanded and governed by reason (e.g., Buchdahl, 1969; 1971; O'Shea, 1997; Abela, 2006).

 Table 1

 Principles of reason as unifying functions at different levels of cognition.

	Input	Output	Major Principle(s) of Systematicity (as Function of Unity)
Level 1	Empirical Concepts	System of Empirical Concepts	Principles of Homogeneity, Specification, and Continuity
Level 2	Empirical Cognitions	System of Empirical Cognitions	Unity of Nature
Level 3	Natural laws	Science = System of Natural Laws	Idea of a Science
Level 4	Sciences	System of the sciences (as part of the Architectonic of Reason)	End(s) of Reason

aspects of cognition that have been left undetermined by the understanding. In contrast to the principles of the understanding, which necessarily constitute the form of any experience according to the logical forms of judgment, the principles of reason are regulative rules for seeking further experience in the process of enquiry.<sup>12</sup>

This paper examines the extent to which empirical psychology fulfils this criterion of scientificity and in fact constitutes a system "under one idea". I argue that only by presupposing an idea of reason, namely the *transcendental idea of the soul*, can psychological cognition be defined and hence can the subject matter, methods and ends of psychology be derived. It is important to note that the systematicity induced by this idea is effective at different levels of cognition. With respect to cognition of nature in general, we can distinguish four different levels at which principles of systematicity are relevant (see Table 1)<sup>13</sup>:

- At the level of *concepts*, the principles of homogeneity, specification, and continuity are needed to seek a *system of empirical concepts*.
- (2) At the level of ordinary *cognitions* (i.e. *empirical judgments* that pertain to particular objects), the principle of the systematic unity of nature is required to seek a *system of cognitions* according to natural laws.<sup>15</sup>
- (3) At the level of discipline-specific scientific cognition, the guiding idea of a science is required to seek a systematic order of natural laws within a specific domain.
- (4) At the level of *science in general*, the final end of reason directs the relations among different disciplines to make possible a *system of all sciences*.

While it goes beyond the scope of this paper to defend each of these levels, this distinction will structure my analysis of psychology. Most important for this analysis are the two levels of scientific cognition (levels 3 and 4), which I discuss in more detail. These levels characterize cognition that belongs to a particular science, such as physics or biology, and require discipline-specific principles of systematicity supplied by so-called *guiding ideas*. A detailed account of such guiding ideas has been supplied by Thomas Sturm (2009:129–182). He introduces the distinction between "internal systematicity", which concerns the systematic relations among cognitions and laws within a science (level 3), and "external systematicity", which concerns the systematic relations of this science to other sciences under consideration of criteria of demarcation (level 4). In what follows, I adopt this distinction and examine psychology's internal (§3) and external systematicity (§4).

A central passage in the *Critique* defines science as a system unifying all its cognitions "under one idea":

systematic unity is that which first makes ordinary cognition into science, i.e., makes a system out of a mere aggregate of it [...]. Under the government of reason our cognitions cannot at all constitute a rhapsody but must constitute a system, in which alone they can support and advance its essential ends. I understand by a system, however, the unity of the manifold cognitions under one idea. This is the rational concept of the form of a whole, insofar as through this the domain of the manifold as well as the position of the parts with respect to each other is determined *a priori*. (A832/B861)

To form a science, a body of cognitions must constitute a system, rather than an aggregate. A body of cognitions only constitutes a system, if these cognitions are guided by or reflected "under one idea", which prescribes "the form of a whole" to them. This idea delineates a science's domain as a whole and determines the position of its depending parts *a priori*. Only by acknowledging the systematic relations among cognitions with respect to this whole can a science "advance its essential ends" of expanding knowledge in its domain. The guiding idea thus prescribes an *internal systematicity* to a science in terms of its domain and intrinsic structure (or *subject matter*), its intrinsic *purpose*, and — as will become clear — also its *methodology*. <sup>18</sup>

The idea outlines a systematically designed *domain* of nature by providing a general concept under which all objects that belong to that science can be reflected, even though the idea itself is a "concept of reason" to which "no congruent object [may be] given in the senses" (A327/B383) (e.g., the concept of "physical matter" in physics or of "organised being" in biology). The multiple cognitions obtained in this science are then considered to form a systematic whole "under the idea". The intrinsic purpose of each science is to extend our knowledge in its delineated domain.

The idea is explicated by a corresponding *schema*, which "contains the outline (*monogramma*) and the division of the whole into

<sup>&</sup>lt;sup>12</sup> It is a matter of on-going debate whether these regulative rules should be considered as *merely heuristic optional* guidelines for science that may be followed, if one sees fit (e.g., Grier, 2001; Kitcher, 1986), or whether they are *transcendentally necessary* conditions that must be presupposed in order to make scientific cognition (or even cognition in general) possible (e.g., Buchdahl, 1969; O'Shea, 1997; Geiger, 2003; Abela, 2006). As will become clear, my interpretation will support the latter position, but does not necessarily depend on it (see fn. 15).

<sup>&</sup>lt;sup>13</sup> I do not make a claim to completness. Moreover, the levels are not independent from each other; rather, demands of unity are passed down from higher levels and then realized at lower levels.

<sup>&</sup>lt;sup>14</sup> These regulative principles help to seek relations among concepts in terms of genus and species (see A652/B680-A668/B696; 5:185–186; also 9:96–97; 24:240–260; 24:905–913; 24:755; 28:355–356).

<sup>&</sup>lt;sup>15</sup> The understanding's principle of causality (A189/B232-A211/B256) is a constitutive form of experience, but does not guarantee that nature — in its material sense as the sum total of empirically observable phenomena — can be represented through a *complete system* of cognitions. Therefore, it is indispensable "to presuppose the systematic unity of nature" in order to find a "sufficient mark of *empirical* truth" (A651/B679; see also A127, B163, A418-419/B446; 4:467) (For this transcendental interpretation, see Buchdahl, 1967; 1971; Abela, 2006; for an opposite heuristic interpretation, see Grier, 2001; cf. fn. 12).

<sup>&</sup>lt;sup>16</sup> A discussion and defence of the first two levels is offered in Kraus(forthcoming).

 $<sup>^{17}</sup>$  My account largely accords with Sturm's (2009, pp.135–181), though I depart from it on some key issues, as indicated below.

<sup>&</sup>lt;sup>18</sup> Here I depart from Sturm's interpretation, according to which the subject matter, purposes and methods are not outlined by the idea, but given by the "definition" of a science and belong as criteria of demarcation to its extrinsic systematicity (2009, pp.162–169). I do not find this reading convincing. Rather, the cited passage suggests that a definition is artificially "given right at the outset [...] by their founder" to start off a new scientific enterprise and has to be corrected along the way, until the idea is understood that lies in reason's nature "like a seed" and defines the "natural unity" of that science, its domain and the position of its parts (A834/B862).

members in conformity with the idea, i.e. a priori" (A833/B861). Analogous to the schemata of the categories of the understanding, the idea serves as a schema and provides the rules for how to accomplish a systematic whole of cognitions.<sup>19</sup> The schema thus defines basic rules of the scientific method in that it supplies a more concrete "monogram" or structural "outline" of the whole and its divisions, which helps to order given cognitions and to seek new ones. This structural outline explicates the "form of a whole" not only as a system of scientific cognitions, but also as a system of natural laws that govern these cognitions. For example, physicists could recognize - on the basis of systematic considerations -Kepler's laws of planetary motions as a specific case of the more general Newtonian laws of corporeal motion.<sup>20</sup>

Furthermore, the "external systematicity" determines the relationship of a science to other scientific disciplines and demarcates their respective domains. Demarcation criteria are primarily the defining features of a science: they specify the "object", "source", and "type" of cognition (4:265). In addition to the ideas of specific disciplines, there are overarching principles of systematicity, culminating in the "final end of reason". Reason finally pursues the highest moral good by seeking the architectonic unity of all sciences, yet without denying the specific (and relatively autonomous) contribution of each science (A840/B868, also A832/B860). Given these overarching principles, a science not only serves its intrinsic purpose, but also extrinsic purposes, viz. "the end that one has in mind for this science itself in uses elsewhere" (4:477), such as facilitating theoretical ends of other sciences, or technical, pragmatic or moral ends of mankind.<sup>21</sup>

It is particularly instructive for the current discussion to consider the case of biology. Recent interpretations suggest that the guiding idea for biology is the idea of an "organised being" with the corresponding principle of objective purposiveness (or teleology) (5:387).<sup>22</sup> Angela Breitenbach argues that in biology the principle of teleology serves not merely as a heuristic guide for the discovery of causal explanation of living beings, but as a "necessary condition for representing something as purposively organised" and hence "for making possible a conception of the living world" (Breitenbach, 2014, p. 133). The principle first defines the way in which we must regard nature to pick out those beings that ought to be considered as purposively organised and hence as belonging to the domain of biology.<sup>23</sup> By reflecting on a heap of matter in accordance with the idea of organised wholes (e.g., a flower), we view it as a whole made up of functionally structured parts (e.g., the flower's stalk, leaves, and calyx), which together strive towards a common purpose, the survival and flourishing of the whole. The biologists then search for chemico-physiological processes that mechanically explain such functional structures. So biology's methodology includes two types of judgment: teleological judgments, by which a piece of nature is viewed as a systematically structured whole, on which its parts depend; and causal (or mechanical) judgments, by which the causal connection between these parts are determined

With respect to empirical psychology, I argue in the following two sections ( $\S 2-3$ ) that the transcendental idea of the soul serves as the guiding idea that prescribes an internal systematicity, before I finally consider psychology's external systematicity in the last section (§4).

#### 3. Psychology and the idea of the soul as the "guiding thread of inner experience"

In his Lectures on Metaphysics and Anthropology from the precritical and partly the critical period, Kant defines psychology primarily by contrast with physics following the rationalist tradition that was advanced among others by Christian Wolff and Alexander Baumgarten.<sup>25</sup> According to this tradition, physics and psychology differ with regard to their specific subject matter. Whilst physics examines the objects of outer sense, viz. moveable bodies in space, psychology deals with the object and contents of inner sense, viz. the soul and its mental states.<sup>26</sup> Traditionally, both doctrines are divided into a rational part that proceeds by a priori rational cognition and an empirical part that proceeds through experience. In his Critical philosophy, Kant keeps a dualism in terms of two kinds of experience: outer and inner experience. Yet his views regarding psychology change radically after the discovery of the Paralogisms of Pure Reason. The Paralogisms lead him to reject the traditional account of a transcendent rational psychology, since it determines unfounded a priori claims about the soul that reach beyond the bounds of experience.<sup>27</sup> Nonetheless, Kant continues to consider psychological cognition as important, although he develops neither a full-fledged Critical account of it, nor a new immanent rational psychology that could ground a science.<sup>28</sup> The first step towards a Critical account, I submit, is to understand the specific role that inner experience (viz. introspection) - as the empirical cognition of one's own mental states - plays for psychology and the specific problems that it faces (in contrast to outer experience).

Recent interpretations of Kant's Critical conception of empirical psychology often downplay either the methodological problems of introspection or the positive role that it plays for scientific psychology despite its epistemic deficiencies regarding objective validation. Frierson's reconstruction account presupposes — without adequate justification — a psychological reality of empirical objects, viz. human souls or minds endowed with mental states, which are primarily accessed through introspection and then objectively cognized in psychology.<sup>29</sup> Sturm's transformation account seeks to avoid the problems of introspection by focussing primarily on "external" methods of behavioural observation of others and on a general a priori conceptual framework of mental faculties and

in accordance with mechanical laws.<sup>24</sup> Biology's intrinsic end is to advance the understanding of living nature; an extrinsic end, for example, is to facilitate the understanding of practical human needs that follow from our biological nature as living organisms.

<sup>&</sup>lt;sup>19</sup> See A137/B176-A142/B181; also 4:473.

 $<sup>^{20}</sup>$  Sturm (2009, pp.143–145, 155–156) leaves it open whether schemata are methodological or logical principles and how exactly they contribute to scientific methodology.

<sup>&</sup>lt;sup>21</sup> The essential ends of each natural science are still speculative, rather than moral, even though they relate to the essential, moral aims of philosophy (see Gava.

<sup>&</sup>lt;sup>22</sup> See Critique of the Power of Judgment, 5:359–384.

<sup>&</sup>lt;sup>23</sup> This interpretation of the principle of teleology as a necessary condition of biological knowledge, rather than a heuristic tool fur further research, has recently been defended by Breitenbach (2014), Nassar (2016), and Geiger (2009). For an opposite interpretation, see McLaughlin (1990).

<sup>&</sup>lt;sup>24</sup> See in particular: 20:232–237; 5:416–424.

<sup>&</sup>lt;sup>25</sup> Wolff (1732), Baumgarten (1982/1739).

<sup>&</sup>lt;sup>26</sup> 2:309, 28:223-224, 28:542, 29:754-757. Physics and psychology are called "physiology" of outer sense and inner sense, respectively (e.g., A347/B405).

27 See A341-405/B399-432. For the historical context, see Sturm (2009) and Dyck

<sup>(2014).</sup> 

 $<sup>^{28}</sup>$  Empirical psychology "is not yet rich enough to comprise a subject on its own and yet it is too important for one to expel it entirely" (A848/B876). On "immanent" rational psychology, see A846/B874.

<sup>&</sup>lt;sup>29</sup> Frierson's (2014, pp.9-12, 25-34) discussion of the soul as an empirical substance does not consider the specific obstacles that the application of substantiality has in inner experience and in particular fails to acknowledge the role of the idea of the soul for it. Frierson is careful to point out that introspection, though the "primary" method of psychology, is neither "sufficient" as a source of psychological evidence, nor "pure" (p.11, fn.4).

human agency, but thereby limits the range of psychological phenomena to those that are related to our action. <sup>30</sup>

In contrast to these interpretations, I argue that inner experience plays an indispensable role in defining psychology's *subject matter*, viz. mental states and their systematic relations, even though it is insufficient as a scientific method and must be supplemented by "external" methods. On my view, Kant's Critical conception of inner experience first allows him to account for the *psychological reality* to be grasped in the corresponding science and to demarcate it from the material reality of physical objects, though without ontologically separating the sphere of nature into two distinct kinds of substances. To be sure, Kant's dualism of mental and material states is a dualism within empirical reality (or within nature) and should be confused neither with the dualism of empirical and transcendental aspects of experience, nor with the Cartesian dualism of two distinct metaphysical substances.

In the Foundations, Kant still considers the possibility of a proper dualism between the "doctrine of body" (viz. physics) and the "doctrine of the soul" (viz. psychology) (4:467), but then puts forwards his well-known methodological doubts about psychology's status as a "proper science" (4:471). The reason for these doubts, I argue, lies in the disparity between the two kinds of cognition – outer and inner experience - that underlie these two scientific endeavours. Examining the notion of inner experience in the Critique, it becomes clear that we do not have available an appropriate "empirical concept of [...] a thinking being" (4:470) that could serve the same purpose for psychology as the empirical concept of matter does for physics.<sup>31</sup> The reason for this is that inner experience lacks a certain kind of unity that is necessary for the application of the category of substance to sensibly given intuition — a unity that outer experience has qua its spatio-material character. The category of substance is a necessary transcendental condition for representing a manifold of intuition as cognition of an object in which states inhere. In the case of inner experience, this category must be substituted, I argue, with the idea of the soul, which only projects the "object [of inner experience] in the idea" (A670/B698).<sup>32</sup>

For outer experience, the basis required to apply the category of substance is given through the presence of material parts in one space, such that their relations are externally determined by their location and motion. In outer intuition, there is "something standing and abiding [...], which supplies a substratum grounding transitory determinations" - something that goes beyond our ephemeral thoughts and representations (A381). This basic material unity is represented by the foundational and primitive concept of (physical) matter, which is empirically given, but which can be explicated a priori (as shown in the Foundations) in accordance with the principles of the understanding as the "moveable in space" (4:480), as that which "fills space" (4:496), and as that which has "moving forces" (4:536). This concept thus provides a sensible explication of the category of substance as something permanent, namely as something spatially extended that persists throughout temporal change.

By contrast, for inner experience, an idea is needed to accomplish the required substantial unity:

[N]ature is twofold: either thinking nature or corporeal nature. Yet to think of the latter as regards its inner possibility, i.e., to determine the application of the categories to it, we do not need any idea, i.e., any representation transcending experience, [...], because here we are guided merely by sensible intuition — not as with the fundamental psychological concept (the I), which contains *a priori* a certain form of thinking, namely its unity. (A684/B712)

Inner experience concerns the internal activity of thinking, which cannot be explicated by external relations.<sup>33</sup> Inner experience must capture the ceaseless flux of inner states received in inner sense. This flux, however, lacks anything "standing and abiding" and therefore does not provide the sort of sensory matter that is appropriate to instantiate the category of substance as something persistent in time (A107, A350).<sup>34</sup> A person's inner state, it seems, changes continuously in any experiential episode in as much as the intuitions constituting this episode succeed continuously one another in inner sense.<sup>35</sup>

In the Foundations, Kant argues more precisely that the "very substance of the soul" cannot be shown to be subject to the principle of the persistence of substance, since we do not have a foundational sensible concept that explicates - in analogy with the concept of matter - the content of empirical substance according to the forms of sensibility (4:453). Rather, the only source of mental unity seems to be the "I, the general correlate of apperception" (4:454) or the "subject of predication", which is indicated by the "I think" and "in all consciousness is one and the same" (B132). Yet the "I" of apperception gives only the most general transcendental condition of cognition, namely the condition that all representations pertaining to an object must be unified in one and the same consciousness in order to form objective cognition. It expresses, if anything, only the generic form of self-referential thought, but does not provide the representation of a sensibly noticeable and thus temporally enduring substance. The "I think" does not supply a temporal unity of consciousness, nor a sensible explication of a mental substance needed for inner experience.

In the Appendix to the Transcendental Dialectic, Kant offers a solution to this problem in the form of an additional conceptual element: the *transcendental idea of the soul* is an idea of reason that directs the understanding as the "guiding thread of inner experience" without having objective reality, i.e., without signifying a permanent entity (A672/B700).<sup>36</sup> More precisely, the "psychological idea" is needed to

connect all appearances, actions, and receptivity of our mind (*Gemüth*) to the guiding thread of inner experience *as if* the mind (*Gemüth*) were a simple substance that (at least in life)

<sup>&</sup>lt;sup>30</sup> On Sturm's view, Kant is critical of introspection because it "is less reliable than observing other people and *depends on it*" (Sturm, 2009, p. 210, see also pp.202–222). Knowledge of the "psychic determinants" of agency is not possible on the basis of "pure introspection", but requires intersubjective criteria, which must be derived from behavioural observations and from a "general framework" that explains the actions of *others* and is then applied to *oneself* (pp.259–260).

<sup>&</sup>lt;sup>31</sup> See also 5:43

 $<sup>^{32}</sup>$  My analysis crucially differs from Frierson's account of the soul as empirical substance.

 $<sup>^{33}</sup>$  A similar diagnosis is offered by Nassar (2016, pp.60) for the case of organic unity that is the object of biology.

<sup>34</sup> See A22-23/B37; A107; A350; B412-413; see also 28:145.

<sup>&</sup>lt;sup>35</sup> Many commentators conclude that inner experience lacks a re-identifiable entity that can be cognized as an empirical substance, e.g., Nayak and Sotnak (1995); Longuenesse (1998, p.345).

<sup>&</sup>lt;sup>36</sup> This central role of the idea of the soul for inner experience is rarely acknowledged in the literature. Two recent exceptions are Wuerth (2014), who tries to restore an ontological interpretation of the soul, and Dyck (2014, pp.199–225), who, to my mind correctly, points out the role of the idea for investigations of inner appearances; however, he denies that these investigations amount to *cognition* of mental states.

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persists in existence with personal identity, while its states [...] are continuously changing. (A672/B700)

This passage, though often overlooked, is central to understanding how we can make sense of our inner appearances as cognizable mental states without asserting the existence of a permanent soul-substance.<sup>37</sup> It suggests that inner experience should be considered as the cognition of mental states that inhere in an empirical substance; yet this empirical substance is only problematically assumed as the sum total of all inner appearances through a regulative idea (here indicated by the "as if"), rather than being asserted on the basis of sensation. The content of this idea is given by the "concept of a simple, self-sufficient intelligence" (A682/B710), which describes the "unconditioned unity of subjective conditions of all representations in general (of the subject or the soul)" (A406/B432). Yet, importantly, this content is not asserted as objectively real by a constitutive use of this concept, but only problematically assumed by a regulative use so that it guides the derivation of systematic connections between mental states:

It is not from a simple thinking substance that we derive the inner appearances of our soul, but from one another in accordance with the idea of a simple being. (A673/B701).

The object of inner experience cannot be sensibly affirmed, but is only projected by reason as an "object in the idea" (A670/B698) in order to allow for the cognition of mental states.

With respect to the levels of systematicity introduced earlier, we now see that inner experience is possible only if "a systematic unity of all appearances of inner sense" (A682/B710) is presupposed as a guideline according to which we can order mental states. The idea of the soul gives guidance for establishing the highest possible coherence among our inner appearances and for drawing causal relations between different mental states:

With [the concept of a simple self-sufficient intelligence] reason has nothing before its eyes except principles of the systematic unity in explaining the appearances of the soul, namely by considering all determinations as in one subject, all powers, as far as possible, as derived from one unique fundamental power, all change as belonging to the states of one and the same persisting being, and by representing all *appearances* in space as entirely distinct from the actions of *thinking*. (A682/B710)

This latter passage clearly suggests that we seek causal explanations of inner appearances in terms of causal mental "powers" and their changing mental states "by considering all determinations as in one subject" endowed with such powers. To give an example, a person can cognize that her perception of a wild animal causes her feeling of fear only by viewing both perception and feeling as the mental "states of one and the same persisting being". Yet in order not to fall prey to the Paralogisms of Pure Reason, the idea is used only regulatively: one problematically

 Table 2

 Idea of the soul as principle of systematicity at different levels of psychological cognition.

	Input	Output	Major Principle of Systematicity (as Function of Unity)
Level 1	Mental Predicates	System of Mental Predicates	Idea of the Soul defines a projected whole as the subject to which mental predicates are attributed
Level 2	Psychological Cognitions (of Mental States)	System of Psychological Cognitions	Idea of the Soul defines a projected whole that logically proceeds its parts, viz. mental states
Level 3	Psychological Laws	3 03 3	Idea of the Soul defines the projected origin of all mental powers

assumes a systematic unity to which all inner appearances belong, rather than asserting the existence of an enduring substantial soul in which mental states inhere. This systematic unity must be presupposed for the cognition of mental states by analogy with the substantial unity of material substance, which inner sense lacks.

Hence, inner experience is in some sense more fundamentally dependent on a regulative idea than outer experience: only by employing the idea of the soul as a systematic principle of inner experience can we first make sense of our inner intuitions as representations of a *mental*, rather than physical, *reality*. Only on the basis of this idea are we in a position to consider inner appearances as determinations of a unified *mind* endowed with mental powers (of thinking, feeling, and desiring), as opposed to a material body endowed with physical powers (of attraction and repulsion). By contrast, for outer experience, the idea of the world-whole as the sum total of *all* appearances is not needed to account for the basic material unity that underlies the cognition of a body. Nonetheless, this idea is indispensible in that it guides how we "ought to proceed" to find lawful connections between bodies (and their states) by approximating the systematic unity of all cognitions (A685/B713).

Inner experience shares an important feature with the experience of living beings. In biology, the idea of purposiveness is required in its regulative use in order to view a heap of matter as a purposively organised whole and thus to first make sense of the concept of life. This idea regulatively guides the way in which we must reflect – by way of the reflective power of judgment – on outer appearances as (states of) living beings, without assertively determining such beings as end-directed and without attributing the property of purposiveness. Such teleological judgments are not a determinate experience of organisms, but first pick out those parts of matter that count as organic and for which one then seeks physico-mechanical explanations.<sup>38</sup> Similarly, for inner experience, the idea of the soul regulatively guides the way in which we must reflect on inner appearances as states of a mental being, without assertively determining the mental being as such. This reflection is not a determinate experience of a soul, but first picks out those appearances that represent one's temporal mental states and for which one seeks causal explanations.<sup>39</sup>

<sup>&</sup>lt;sup>37</sup> The regulative idea of the soul is often ignored in interpretations of Kant's psychology. Its role remains unnoted by Frierson (2014) and is marginalized by Sturm (2009, pp.254–255, fn.87). There are exceptions, such as Klemme (1996), who however claims that the "as-if" model of the soul has been replaced in the B-Edition (Klemme, pp.229–234). Serck-Hanssen (2011) makes the suggestions that the idea should serve to define a "mark of the mental", but thinks that this is not the interpretation that Kant in fact develops in this passage (Serck-Hanssen, 2011, p. 69). Dyck (2014) reads the idea as the basis of an "impure rational psychology", without explaining how this differs from empirical psychology (Dyck, 2014, pp.199–225). None of them takes the idea of the soul to be foundational for the scientific status of *empirical* psychology.

<sup>&</sup>lt;sup>38</sup> Support for this interpretation of teleological judgments as a necessary form of reflection in biology can be found in the *Critique of Judgment*, in which reflective judgments are shown to be a "form of reflection" according to non-sensible concepts (5:351; also 5:386–390). On this interpretation, see also Breitenbach (2014), Geiger (2009) and Nassar (2016); for an opposite view, see McLaughlin (1990).

<sup>&</sup>lt;sup>39</sup> It goes beyond the scope of this paper to give a full argument for the similarities between the regulative use of ideas of reason in the *First Critique* and reflective judgment in the *Third Critique*. Important for my comparison with biology is only that both denote a cognitive activity that is guided by an idea or principle, without making assertive (or determinative) claims about objects of experience.

In sum, the sphere of mental phenomena is delineated through the capacity for inner experience: mental phenomena are those phenomena that can be accessed through the capacity for inner experience. This capacity presupposes the idea of the soul as the sum total of all mental states, i.e., the representation of a mental whole that logically precedes its parts, viz. mental states. So far the idea of the soul has been shown to operate at the first two levels of systematicity (see Table 2). It is involved in accomplishing the cognition of one's mental states (1) by providing a systematic idea under which all mental predicates must be reflected (level 1) and (2) by providing a principle to order mental states into a systematic unity by analogy with the substantial unity of outer objects (level 2).

#### 4. The idea of the soul as the "guiding idea" of psychology

The aim of empirical psychology is to accomplish *psychological cognition* of mental states, which — unlike inner experience — is neutral with respect to the particular subject who has such inner experience. Psychological cognition abstracts from the personal-subjective component of inner experience. <sup>40</sup> Now the question arises whether we can understand the idea of the soul as the "guiding idea" of psychology that prescribes an internal systematicity to psychological cognition (level 3). Is there a corresponding schema that supplies methodological rules for how to acquire a system of psychological laws?

With the previous discussion we now see that the idea of the soul is needed to first carve out the *domain of psychology* as a separate part of nature that — in a certain respect — can be construed independently from corporeal nature. Appearance in inner sense alone would not suffice, since outer appearances also appear in inner sense, although they are cognized as states of an outer object, rather than of the mind itself. By means of the idea, we are able to represent mental states (or "the actions of thinking") "as entirely distinct from" "appearances in space" — both lifeless and organic matter (A682/B710). Outer and inner appearances are distinct, *not* because they belong to different kinds of empirical substances within nature, but because they represent different constitutions (or characteristics) of nature (*Naturbeschaffenheiten*), as suggested in the *Metaphysics of Morals*:

though we may, in a theoretical respect, distinguish soul and body from each other, as natural characteristics of a human being, we may not think of them as different substances. (6:419, see also 20:308)<sup>41</sup>

Whilst it is unknowable whether a disembodied soul can exist independently from the human body as a non-material substance, the human being — as long as she is alive — must always be conceived of as having both bodily and mental states. <sup>42</sup> These two kinds of states can be distinguished "in a theoretical respect" only if each kind can be subsumed under a common concept ("conceptus communis", A655/B683). Bodily appearances are subsumed under the concept of matter, whereas inner appearances must be reflected under the idea of the soul — as their sum total — in order to be

cognized as mental states distinct from other kinds of natural states.

This reading concurs with definitions of mind and psychology in the *Anthropology*:

The mind (*animus*) of the human being, as the sum total of all representations that have a place within it, has a domain (*sphaera*) which concerns three parts: the faculty of cognition, the feeling of pleasure and displeasure, and the faculty of desire. (*Note to* 7:141)

Its perceptions [i.e. of inner sense] and the inner experience (true or illusory) composed by means of their connections are [...] psychological, where [...] the mind, which is represented as a mere faculty of feeling and thinking, is regarded (angesehen wird) as a special substance dwelling in the human being. (7:161)

Note that the last passage refers not to "cognizing" or "determining" the mind as a "special substance", but to "regarding" (angesehen) it as such. In line with my interpretation, this suggests Kant is referring to reflection under the idea of a mental substance, rather than its determination. To be sure, the task of psychology is to explore, not the soul or its a priori constitution, but the mental states that de facto occur and the empirical laws that govern them. Psychology is thus the "sum of all inner perceptions under laws of nature" (7:141, also A846/B874ff.).

The question of how to accomplish a *system of psychological laws* is more difficult. Is there a *schema* corresponding to the idea that provides methodological rules for explicating the systematic structures within the domain of psychology? Can the method of self-observation, or inner experience, be useful for acquiring psychological knowledge?

If mental states are viewed as part of nature, they must be subject to natural laws. Psychology requires two types of judgments: (a) judgments by which we *reflect* upon inner appearances as mental states to be described by psychological laws, and (b) judgments that *determine* efficient-causal relations between mental states in accordance with psychological laws. Inner experience determines efficient-causal relations between mental states *within* one subject, namely oneself. In order for these efficient-causal relations to qualify as laws of nature, they must be assumed to hold, not only for particular individuals, but for *all* human beings. For example, to understand emotional reactions, such as joy or anger, psychologists try to find general belief patterns that tend to induce certain emotions. In the *Anthropology*, Kant discusses such "psychological" causes as ingredients for the explanation of certain actions, such as committing suicide:

Whether suicide also presupposes courage, or always despondency only, is not a moral question but *merely a psychological one*. If it is committed merely in order not to outlive one's honor, therefore out of *anger*, then it appears to be courage; however, if it is due to exhaustion of patience in suffering as a result of *sadness*, which slowly exhausts all patience, then it is an act of *despair*. [...] — To a certain extent the manner of execution of the suicide allows this distinction of mental state to be recognized. If the chosen means are sudden and fatal without possible rescue, as in, for example, a pistol shot [...], then we cannot contest the courage of the person who has committed suicide. [...] (7:258, my emphasis).

Kant here observes different "manners" of action that are caused by different types of mental states. In general, Kant assumes that

<sup>&</sup>lt;sup>40</sup> Whilst inner experience involves the cognition of "my fear", a person-neutral psychological cognition involves the cognition of someone's "fear". I leave it open here whether this subjective-personal component of inner experience should be viewed as part of its content or as its specific mode or perspective of cognition.

<sup>&</sup>lt;sup>41</sup> Kant uses the term "natural constitution (or characteristic)" to indicate the sensible nature (as distinct from the rational nature) of human beings mainly in his works on practical philosophy; see 4:395; 4:444; 5:100, also 20:267; 20:270; 20: 301.

<sup>&</sup>lt;sup>42</sup> See B413-418.

each type of psychological cause belongs to a specific mental power that produces representations of a specific type. At first glance the diversity of phenomena let "one assume almost as many powers as there are effects, as in the human mind there are sensation, consciousness, imagination, memory, wit, the power to distinguish, pleasure, desire, etc." (A649/B677). Psychological laws are supposed to describe the workings and interactions of these powers in terms of cause-effect relations between the mental states they produce. For example, a psychological law may describe the causal relation between the visual perception of a wild animal, the cognition "This is a wild animal", the feeling of displeasure (and, more specifically, fear, indicating the danger that this animal may induce), and the desire to run away.

But can these cause-effect relations ever be more than empirical regularities with "comparative universality" (B3; A24/B39) and give rise to universal "laws of experience" (4:468) that hold without exceptions, like the laws of chemistry? For Kant, such "laws of experience" can be established only on the basis of reproducible observations that guarantee their objective validity and universality. Yet he is sceptical that introspective methods alone allow for reproducible experiments because of their epistemic deficiencies. In self-observation, it is difficult to clearly separate one's different states and to observe them "by will" (4:471). Moreover, selfobservation distorts and "displaces the state of the observed object" (4:471), is prone to error, illusions, "enthusiasm and madness" (7:132) and may involve "the tendency to accept the play of ideas of inner sense as experiential cognition, although it is only a fiction" (7:161). Thus, introspective methods must be supplemented by "external" methods in order to guarantee objective detectability, as I discuss below.

Nonetheless, I argue that the idea of the soul provides a guideline to "approximate" universality for psychological laws on the basis of systematization. It does so by being explicated through a corresponding "analogue of a schema". Even though for an idea of reason no corresponding schema is given in intuition, there is an "analogue of such a schema", which articulates the systematic structure delineated by the idea; this schematic analogue is the general "idea of the maximum of division and unification of the understanding's cognition in one principle" (A665/B693). In this case, it helps psychologists to give more finegrained accounts of a diversity of mental phenomena and to reduce this diversity to fewer, more fundamental mental powers. By means of this schematic analogue, the idea of the soul pursues an even higher systematization of psychology into a system of psychological laws, in which more specific laws are subsumed under more general ones. It does so by "considering [...] all powers [of the soul] as derived from one unique fundamental power" (A682/B711). This does not mean that there will ever be an empirical proof of such a single fundamental power, nor that psychologists have to settle the endless metaphysical debate about its real possibility.<sup>43</sup> Rather, the idea of the soul serves as the "focus imaginarius" in which all powers and mental activities are thought to originate (A644/B672). The idea is regulatively used to hypothetically assume a "comparatively fundamental power" that solves "the problem set by a systematic representation of the manifoldness of powers", but "does not at all ascertain whether there is such a thing" (A649/B677). In this sense, the regulative idea of the soul "bring[s] unity into particular cognitions as far as possible and thereby approximat[es] the rule to universality" that is required for laws of nature (A647/B675). That is, if psychologists can show that a psychological law that they have found on the basis of empirical (self-)observations fits into the system of psychological laws, they have good reasons to believe that this law "approximates" universal validity.<sup>44</sup>

A striking example of a systematic classification of psychological laws can be found in Kant's account of the "weaknesses and illnesses of the soul with regard to its cognitive faculty" in the *Anthropology* (7:202–220). Here Kant delineates a rich variety of mental illnesses and deficiencies systematically ordered according to the three-fold structure of the cognitive faculty – sensibility, understanding and reason. Moreover, the hypothetical assumption of a fundamental power for systematization purposes does not contradict Kant's claims that there are three fundamental and mutually irreducible powers – cognition, desire and feeling.<sup>45</sup>

Despite the important role of self-observation in the acquisition of empirical data about mental states, it suffers major epistemic deficiencies and must be supplemented by "external" methods. Kant argues in the Foundations that forcing psychological experiments upon other people is even more difficult than self-observation (see 4:471, 7:121). Nonetheless, he makes some relevant suggestions regarding the detection of mental states through indirect methods on the basis of correlations with "external" expressions of a person's speech, behaviour, and motion. The "external" effects of a person's mind in terms of linguistic, behavioural, or bodily expressions can be the object of a psychologist's "outer intuition" (see A363).46 Importantly, such external observations can only be interpreted in the right way if we first presuppose the capacity for inner experience in the other person. To make sense of these observations as expressions of another mind's state, rather than another's bodily state, one has to view the other, not primarily as material being or living organism, but as another mind. This can be accomplished only if one "transfers" the way in which one views oneself in inner experience onto the other person, as indicated in the Paralogisms:

Now I cannot have the least representation of a thinking being through an external experience, but only through self-consciousness. Thus such objects are nothing further than the *transference of this consciousness of mine* to other things, which can be represented as thinking beings only in this way. (A347, my emphasis).

This consideration suggests that the way the observer reflects upon herself by means of the idea of the soul (here, the consciousness of mine as a thinking being) is transferred to the observed person, who in turn is conceived of as a mind endowed with mental powers and capable of inner experience. Inner

<sup>&</sup>lt;sup>43</sup> Kant argues that an absolutely fundamental power cannot be discovered in experience, but must be presupposed for the sake of systematization (see 5:46–47, also A94). On the historical debate concerning a fundamental power of the soul, see Heßbrüggen-Walter, 2004; Wuerth, 2014; Dyck, 2014, pp.199–224.

<sup>&</sup>lt;sup>44</sup> McNulty (2015) convincingly argues that regulative ideas are the source of universally valid laws of experience in chemistry, but denies that psychological laws could be establish due to a lack of appropriate experimental methods (on the latter issue, see also McNulty (forthcoming)). My argument suggests a more parallel treatment of chemistry and psychology. Frierson (2014, p.34), by contrast, is satisfied with the comparative "empirical universality" of psychological laws and does not ground such universality in principles of systematicity, even though he grants the usefulness of "the pursuit of diverse phenomena and the reduction of that diversity to a systematic unity" (p.14).

<sup>&</sup>lt;sup>45</sup> E.g., 5:9n; 5:177; 20:205; 20:230n. It is controversial whether the assumption of these fundamental mental powers results from psychological investigations (Frierson, 2014) or from transcendental philosophy, which presupposes three corresponding transcendental faculties (Sturm, 2009, pp.386–391).

<sup>&</sup>lt;sup>46</sup> See Cohen, 2009, pp.65–68.

experience remains the primary method of psychology, which guides our interpretation of supplementary methods.<sup>47</sup>

In sum, the idea of the soul serves not only for inner experience at the levels 1 and 2, but also as the guiding idea of psychology to establish its internal systematicity at level 3 (see Table 2). In contrast to the rationalist conceptions, Kant's critical conception of empirical psychology depends no longer on the question of whether human beings have a soul at all and, if so, what its essential features are. Rather, empirical psychology seeks systematic connections between diverse mental phenomena and is thereby regulatively guided by the idea of the soul: firstly, the idea defines the domain of the psychological phenomena by representing a projected whole that logically precedes all mental states to be investigated in psychology, and, secondly, the idea supplies – by way of an analogue of a schema – principles for dividing complex mental phenomena and for unifying mental powers, leading to a system of psychological laws. Both these tasks are based on the more fundamental role that the idea plays for inner experience, even though inner experience is insufficient as a scientific method.

My interpretation fundamentally complements Frierson's reconstruction account in that it offers a justification of psychology's subject matter and inner structure in light of the systematizing function of regulative ideas in science and without naïvely presupposing the existence of an empirical object observed through introspection. It acknowledges the central role of introspection in defining the sphere of psychological phenomena, without downplaying its epistemic deficiencies as scientific method. This interpretation can grant the supplementation of introspection by "external" methods, without being committed to transforming empirical psychology into a supplementary part of an anthropology that would be primarily based on the observation of others (and on background assumptions concerning mental faculties) and whose explanations would be in terms of outer actions, as Sturm's transformation account suggests.

#### 5. The limits and the external ends of psychology

So far my analysis has shown that Kant's Critical philosophy allows for a conception of empirical psychology as a highly systematic body of cognition based on the guiding idea of the soul. But does this conception ground a *science* of psychology? Despite its high degree of systematicity, psychology reveals certain deficiencies that cast doubts on its scientific status. A comparison with others sciences, I argue, suggests that psychology — given certain qualifications — may qualify as an improper natural science and that it plays a specific irreducible role in the system of sciences, in particular in relation to anthropology (see level 4, Table 1).

With regard to its scientific status, psychology does *not* fulfil the standards of a rational science, in particular not that of a "natural science properly so-called" (4:467). According to Kant's most demanding conception of rational science, the guiding idea is the rational concept of the form of a whole, insofar as through this the domain of the manifold as well as the position of the parts with respect to each other is determined *a priori*. [...] [T]here can be no contingent addition or undetermined magnitude of perfection that does not have its boundaries determined *a priori*. (A832/B860)

Psychology lacks appropriate principles (or schemata) for the *a priori* execution of its whole system in accordance with an idea. In physics, such schemata for the construction of the whole system are given by the categories (and the principles of the

understanding), according to which the foundational empirical concept of matter can be explicated in a metaphysical system and then mathematically constructed.<sup>48</sup> In psychology, we do not have available a schema from which we can produce *a priori* an outline of the sum total of mental phenomena and its divisions. There is no foundational *empirical* concept of the mind that can be *a priori* explicated according to the categories, but only the regulative idea of the soul. Attempting to derive *a priori* the essential features of the soul leads, rather than to real determinations, to the illusions that Kant warns us against in the Paralogisms.

So only empirical investigations can reveal empirical laws of psychology. Principles of systematicity guide these investigations in searching for the unification and specification of psychological laws, but do not provide a priori derivations of them. As seen, we have only an "analogue of a schema" that provides criteria for their universal validity based on systematic considerations regarding their position in a complete system. While it is undisputed that psychology can never be a proper natural science, my present discussion suggests that Kant has good reasons to revise his judgment from Foundations that psychology can never be more than a "natural description of the soul" (4:471), i.e., "a system of classification for natural things in accordance with their similarities" (4:468). Based on the systematization pursued by the idea of the soul, Kant could grant psychology - along with chemistry and biology – the status of an "improperly so-called natural science" – a causal science of nature that approximates the rank of a proper natural science by seeking a system of "laws of experience" (4:468) which is as comprehensive as possible.<sup>49</sup>

Yet there is a qualification to be made. Despite being unified through an idea of reason into a classificatory system of mental phenomena governed by psychological laws, psychology displays an explanatory incompleteness. Psychology, if guided merely by the idea of the soul, is primarily confined to mental states and to their causal interactions within one subject, but already excludes the explanation of the subject's actions.<sup>50</sup> Human actions involve not only the person's mental states, such as intentions, motivations, and beliefs, but also bodily movements and social interactions with others. An account of action thus has to consider not only intrapersonal mental interaction, but also psycho-physical and interpersonal interaction.<sup>51</sup> In turn, human actions have effects on mental states, and thus bodily and social aspects are often relevant for explaining the occurrence of certain mental phenomena. So psychology might even be incomplete with respect to a full explanation of mental phenomena.<sup>5</sup>

Kant is aware of these difficulties, as various passages show. He repeatedly points out that the soul, as long as the human being is alive, cannot be viewed separately from the body and that human life can be understood only by considering both bodily and mental aspects (e.g., A349, B415, 7:153ff.). As natural phenomena, inner

<sup>&</sup>lt;sup>47</sup> This contradicts Sturm's view that mental states must primarily by "observing other people" (2009, p.210). and that psychological determinants of action can best be understood from the position of seeing others act (pp.259–260) (see fn.29).

<sup>&</sup>lt;sup>48</sup> "But the schema for completeness of a metaphysical system, whether it be of nature in general, or of corporeal nature in particular, is the table of categories." (4: 474).

<sup>&</sup>lt;sup>49</sup> The similarities between biology and psychology have been indicated in §2. On the scientific status of chemistry, see McNulty (2015). A detailed comparison between these three candidates for natural sciences goes beyond the scope of this paper. For a critical view of psychology, see McNulty (forthcoming).

<sup>&</sup>lt;sup>50</sup> My interpretation differs from both Frierson's (2014) and Sturm's (2009) in that they take human action to be the primary subject matter to be explained by psychology.

<sup>&</sup>lt;sup>51</sup> My conclusion that a psychology guided by the idea of the soul cannot account for agency is supported by Cohen's (2009) argument that an anthropological account of human beings as intentional agents requires teleological principles borrowed from biology.

 $<sup>^{52}</sup>$  Biology may display a similar explanatory incompleteness in that it relies on physico-chemical laws.

appearances are always regarded as "standing in community with other real things outside" (A682/B710). These difficulties are probably the strongest reasons for Kant to develop his conception of pragmatic anthropology that seeks "pragmatic knowledge of the human being [which] aims at what he makes, can, or should make of himself as a freely acting being" (7:119). Regarding the Architectonic of Reason, Kant finally suggests that empirical psychology should find its place in "a complete anthropology (the pendant to the empirical doctrine of nature)", which still is to be developed (A849/B877). This thought is echoed in the *Progress* essay:

Psychology, for human understanding, is nothing more, and can become nothing more, than anthropology, i.e., than a knowledge of man, albeit restricted to the condition: So far as he is acquainted with himself as object of inner sense. (20:308).

Kant's pragmatic anthropology aims at so-called "pragmatic knowledge" or "knowledge of the world" (*Weltkenntnis*): it seeks a comprehensive account of human agency, considering psychological causes, human characters, and social rules of interaction, for the *practical* purpose of improving human conduct in the world.<sup>53</sup> By contrast, psychology provides only "scholastic knowledge" (*Schulwissen*), insofar as it mainly serves the theoretical purpose of extending our knowledge of psychological laws.<sup>54</sup> But does Kant really intend to give up psychology as a self-standing systematic science and transform it into a supplementary part of pragmatic anthropology, as the transformation account claims?

I think that the previous analysis suggests that for Kant psychology must be regarded as a — to a certain extent autonomous — system of cognitions unified under one idea, if it is to fulfil its specific, irreducible role within the system of all sciences, and in particular in relation to anthropology. This role is to *save the phenomena of the mental* from being reduced to the phenomena of other sciences, such as physiology or behavioural studies. In this sense, psychology is indispensable for anthropology, which also relies on the fact that human beings are "ensouled" (*beseelt*), rather than merely material or organic. The passage from the *Progress* essay cited above points this out clearly. As Kant continues:

That he [the human being] is not wholly and solely a body can (...) be rigorously proved, since the unity of consciousness, which must necessarily be met within every cognition (and so likewise in that of himself), makes it impossible that representations distributed among many subjects should constitute unity of thought; hence materialism can never be employed as a principle for explaining the nature of our soul. (20:308).

So Kant's conception of psychology based on the idea of the soul disallows a materialistic reduction of mental phenomena to the study of phenomena of outer sense. Kant's conception safeguards against a misguided conflation of "empirical laws of corporeal appearances" with psychological laws, which "are of an entirely different species" (A683/B711).<sup>56</sup> This argument can be extended to concern the reduction not only to physico-material and organic

Yet this does not exclude that physical, biological or social causes may contribute to the explanation of mental phenomena. Mental phenomena are unified under the idea of the soul, but they are attributed to a being that at the same time can be viewed as a physical, organic, or social being. By basing the different sciences that contribute to an understanding of human beings on different guiding ideas, Kant does not double (or triple, etc.) the sphere of empirical substances, but supports the idea of a plurality of empirical phenomena that can be attributed to one and the same being, the human being.<sup>57</sup> Different guiding ideas under which we can reflect upon human beings thus offer different epistemic perspectives, which cannot be reduced to one another. No perspective requires an assertive metaphysical commitment regarding the existence of an underlying substance, other than the general commitment that human beings are empirical objects in space and time, at least during life.

Kant does not want psychologists to be "dogmatist spiritualist [s]" who "presume[] to dispense with all the natural investigation of the cause of these inner appearances from physical grounds of explanation" or who argue for a fully distinct sphere of mental substances (A690/B718). Rather, the idea of the soul must be employed regulatively with respect to inner appearances, without thereby detaching mental phenomena from other parts of nature in a substantial way. In inner experience we represent mental phenomena as a part of the causality of nature and seek to find natural causes within and beyond psychology. The capacity for inner experience based on the regulative idea of the soul is thus a necessary condition for the anti-reductionist conception of the mind that underlies psychology and that saves mental phenomena from being reduced to other phenomena or denied reality altogether. A transformation account that considers psychology only as a supplementary part of anthropology in terms of the "psychic determinants of human agency" is at risk of losing sight of those mental phenomena that are not directed at action, such as dreams, fantasies and non-conative aspects of complex feelings or attitudes, such as love and hope.<sup>58</sup>

Nonetheless, the insights that the explanatory grounds for mental phenomena often reach beyond psychology and that the vagueness of introspection implies the use of other scientific methods have led Kant to acknowledge psychology's need to be integrated into a more comprehensive study of the human being. In turn, pragmatic anthropology fundamentally depends on the theoretical knowledge achieved in psychology and crucially builds on the anti-reductionist conception of the mind. For Kant, an account of human action cannot be given without appealing to mental states such as feelings, desires and cognitions and their accessibility through the subject's inner experience.<sup>59</sup> Therefore, anthropology must presuppose the regulative idea of the soul and indeed begin with "the fact that the human being can have the 'I'" and represent herself as "one and the same person" throughout mental (and other) changes (7:127).<sup>60</sup> Yet this idea is too narrow to delineate the full domain of anthropology, i.e., human agency in

phenomena, but also to other kinds of "external" expressions such as speech, behaviour and social interaction. The subject matter of psychology must be clearly distinguished from that of physics, biology and other relevant sciences.

<sup>&</sup>lt;sup>53</sup> For a detailed discussion of this definition, see Sturm (2009), esp. pp.332–358.

<sup>&</sup>lt;sup>54</sup> "[P]sychology [...] is scholastic knowledge. [...] Pragmatic anthropology should not be psychology; to examine whether human beings have a soul or what arises from the thinking and sensing principle in us, [...], rather [pragmatic] knowledge of man." (R1502a; 15:800f., my translation).

<sup>&</sup>lt;sup>55</sup> "Psychology looks at the soul only; but anthropology is [done] if I consider the human being [...] as ensouled (*beseelt*)." (*Anthropology Reichel* 25:395, my translation).

<sup>&</sup>lt;sup>56</sup> On this issue, see Dyck (2014), pp.215–217.

 $<sup>^{57}</sup>$  E.g., "the very same thing that is called a body in one relation would be a thinking being in another [...] it would be said, as usual, that human beings think." (A349-350, also B415, 7:153ff.).

<sup>&</sup>lt;sup>58</sup> Sturm (2009, p.365, 370).

 $<sup>^{59}</sup>$  The First Part of his lecture on anthropology mainly includes "the art of cognizing the interior [...] of the human being," (7:122).

<sup>&</sup>lt;sup>60</sup> Also, 20:270; 28:275–276.

social contexts, and to guide its internal systematicity. Anthropology thus requires additional ideas, such as the ideas of freedom and of purposiveness.<sup>61</sup> The specific external end of psychology now becomes clear: it provides relevant theoretical insights into our mental lives for the more comprehensive pragmatic science of anthropology, which eventually aims at improving human happiness and moral conduct.

#### 6. Conclusion

This paper set out to explore the possibility of rescuing Kant's conception of psychology as a theoretical science in its own right by analysing its kinds and degrees of systematicity. I have argued that Kant's Critical philosophy allows for such a conception, if one interprets the regulative idea of the soul as the guiding idea that outlines psychology's internal systematicity. The idea of the soul serves psychology in two respects: firstly, the idea delineates the domain of mental phenomena by representing a projected whole that logically precedes all mental states to be investigated in psychology; and, secondly, the idea pursues – by means of the corresponding analogue of a schema - the division and unification of psychological laws into a system. Hence, despite the fact that psychology lacks metaphysical principles for an a priori determination of its whole system, this idea provides an indispensable guideline for approximating the universality and logical perfection of rational sciences.

Moreover, the idea of the soul plays an important role regarding psychology's external systematicity in relation to other sciences. By approaching the subject matter of psychology via inner experience guided by this idea, Kant provides an antireductionist conception of mental phenomena, which safeguards against reductionist programmes that intend to reduce mental phenomena to phenomena of other related sciences. In turn, by embedding psychology - as an autonomous part - into the more comprehensive science of pragmatic anthropology, Kant prevents his account of psychology from falling prey to the methodological deficiencies of purely introspectionist conceptions. Finally, the psychological description of mental phenomena – as part of the causality of nature – is indispensable for an account of free agents in pragmatic anthropology. Only a human being who represents herself as a bearer of mental states can act in accordance with her own states of desire, cognition, and feeling, and thus represent herself as free at least from external coercion. A full account of human free agency, however, cannot be given within the theoretical perspective of empirical psychology, but requires the practical perspective based on the idea of freedom. It must be left open for further examination as to how psychological-causal explanations can be reconciled with, and thus contribute to, the anthropological account of human agency.

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#### References

- Abela, P. (2006). The Demands of Systematicity: Rational judgment and the structure of nature. In G. Bird (Ed.), A Companion to Kant (pp. 408-422). Oxford: Blackwell.
- Baumgarten, A. G. (1982). Metaphysica. Halle/Magdeburg (7th ed.) Hildesheim: Olms. (First published 1739)
- Brandt, Reinhardt (1999). Kritischer Kommentar zu Kants 'Anthropologie in pragmatischer Hinsicht'. Hamburg: Meiner.
- Brandt, Reinhardt (2000). Die Leitidee der Kantischen Anthropologie und die Bestimmung des Menschen. In R. Enskat (Ed.), Erfahrung und Urteilskraft (pp. 27-40). Würzburg. (English translation: In: B. Jacobs and P. Kain (eds.), Essays on Kant's Anthropology. (pp. 85-104). Cambridge: Cambridge University Press)
- Breitenbach, A. (2014). Biological purposiveness and analogical reflection. In I. Goy, & E. Watkins (Eds.), Kant's theory of biology (pp. 131-148). Berlin: De Gruyter.
- Buchdahl, G. (1967). The relation between 'understanding' and 'reason'. Proceedings of the Aristotelian Society, 67, 209-226.
- Buchdahl, G. (1969). Metaphysics and the philosophy of science. The classical origins -Descartes to Kant. Oxford: Basil Blackwell.
- Buchdahl, G. (1971). The conception of lawlikeness in Kant's philosophy of science. Synthese, 23, 24-46.
- Cohen, A. (2009). Kant and the human sciences: Biology, anthropology and history. London: Palgrave Macmillan.
- Dyck, C. (2014). Kant and rational psychology. Oxford: Oxford University Press.
- Friedman, M. (2013). Kant's construction of nature. Cambridge: Cambridge University Press
- Frierson, P. (2014). Kant's empirical psychology. Cambridge: Cambridge University
- Gava, G. (2014). Kant's definition of science in the Architectonic of Pure Reason and the essential ends of reason. Kant-Studien, 105, 372-393.
- Geiger, I. (2003). Is the assumption of a systematic whole of empirical concepts a necessary condition of knowledge? Kant-Studien, 94, 273-298.
- Geiger, I. (2009). Is teleological judgment (still) necessary? Kant's arguments in the analytic and in the dialectic of teleological judgment. British Journal for the History of Philosophy, 17, 533-566.
- Grier, M. (2001). Kant's doctrine of transcendental illusion. Cambridge: Cambridge University Press.
- Guyer, P. (1990). Reason and reflective judgment: Kant on the significance of systematicity. Noûs, 24, 17-43.
- Hatfield, G. (2006). Empirical, rational, and transcendental Psychology: Psychology as science and as philosophy. In P. Guyer (Ed.), The Cambridge Companion to Kant (pp. 200-227), Cambridge: Cambridge University Press.
- Heßbrüggen-Walter, S. (2004). Die Seele und ihre Vermögen. Kant's Metaphysik des Mentalen in der "Kritik der reinen Vernunft. Paderborn: Mentis.
- Kant, I. (1900ff). Gesammelte Schriften. In Königlich-Preußische Akademie der Wissenschaften, Berlin: Reimer/DeGruvter,
- Kant, I. (1992ff). In P. Guyer, & A. Wood (Eds.), The Cambridge Edition of the Works of Immanuel Kant. Cambridge: Cambridge University Press.
- Kitcher, Ph (1986). Projecting the order of nature. The Western Ontario Series in Philosophy of Science, 33, 201-235. Klemme, H. (1996). Kants Philosophie des Subjekts. Hamburg: Meiner.
- Kraus, K.. (forthcoming). Contemporary Kantian philosophy of science. In S. Baiasu & M. Timmons (Eds.), The Kantian Mind. London: Routledge.
- Kraus, K. (2013). Quantifying inner experience? Kant's mathematical principles in the context of empirical psychology. European Journal of Philosophy (Online: Dec. 2013: DOI: 10.1111/ejop.12068)
- Longuenesse, B. (1998). Kant and the capacity to judge. Princeton: Princeton University Press.
- McLaughlin, P. (1990). Kant's critique of teleology in biological explanation. Antinomy and teleology, Lampeter: Edwin Mellen Press,
- McNulty, Bennett (forthcoming) Kant on empirical psychology and experimentation. In V. Waibel, M. Ruffing (Eds.) Natur und Freiheit: Akten des XI. Internationalen Kant-Kongresses. Berlin: De Gruyter.
- McNulty, Bennett (2015). Rehabilitating the regulative use of reason: Kant on empirical and chemical laws. Studies in History and Philosophy of Science, 54, 1-
- Nassar, D. (2016). Analogical reflection as a source for the science of life: Kant and the possibility of the biological sciences. Studies in History and Philosophy of Science, 58, 57-66.
- Nayak, A., & Sotnak, E. (1995). Kant on the impossibility of the 'soft sciences'. Philosophy and Phenomenological Research, 55, 133-151.
- O'Shea, J. (1997). The needs of the understanding: Kant on empirical laws and regulative ideals. International Journal of Philosophical Studies, 5, 216-254.
- Pollok, K. (2001). Kants 'Metaphysische Anfangsgründe der Naturwissenschaft'. Ein kritischer Kommentar. Hamburg: Meiner.

<sup>&</sup>lt;sup>61</sup> Unfortunately, Sturm (2009) does not provide an account of anthropology in terms of (a) guiding idea(s) and corresponding schema(ta), despite his emphasis on its internal systematicity. Moreover, he does not acknowledge that psychology plays its specific role for anthropology only due to its systematic character based on the guiding idea of the soul (though he concedes that "mental acts [...] have a subject or bearer" without giving an account of that "subject", p.386). Brandt (1999, 2000) suggests that anthropology is a "systematically designed empirical science" (1999, p.9), which is not unified by a single idea of reason, but composed of systematic subdomains.

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Serck-Hanssen, C. (2011). Der Nutzen von Illusionen. Ist die Idee der Seele unentbehrlich? In B. Dörflinger (Ed.), Über den Nutzen von Illusionen. Die regulative Ideen in Kants theoretische Philosophie (pp. 59-71) (Hildesheim: Olms)

Ideen in Kants theoretische Philosophie (pp. 59-71) (Hildesheim: Olms)
Sturm, T. (2001). Kant on empirical psychology: How not to investigate the human mind. In E. Watkins (Ed.), Kant and the sciences (pp. 163-184). New York: Oxford University Press.

Sturm, T. (2009). *Kant und die Wissenschaften vom Menschen*. Paderborn: Mentis. Westphal, K. (2004). *Kant's transcendental proof of realism*. Cambridge: Cambridge University Press.

Wolff, C. (1732). Psychologia empirica. In Gesammelte werke II 5. Hildesheim (Olms).1968.

Wuerth, J. (2014). *Kant on mind, action, and ethics*. Oxford: Oxford University Press.

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