

KANT'S B DEDUCTION, COGNITIVE ORGANICISM, THE LIMITS OF NATURAL SCIENCE, AND THE AUTONOMY OF CONSCIOUSNESS

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In the ... example of a house my perceptions could have begun at its rooftop and ended at the ground, but could also have begun below and ended above; likewise, I could have apprehended the manifold of empirical intuition from the right or the left. In the series of these perceptions there was therefore no determinate order that made it necessary when I had to begin in the apprehension in order to combine the manifold empirically....[T]he subjective sequence of apprehension.... proves nothing about the connection of the manifold in the object [of experience], because it is entirely arbitrary (*ganz beliebig*). (A193/B238)

1. Introduction

The canonical, or at least the orthodox, interpretation of Kant's B edition Transcendental Deduction of the Pure Concepts of the Understanding, aka the Categories, says that it is an argument for *the unbounded scope of the conceptual over manifest reality*, that is, for the claim that the Categories necessarily apply to all and only actual and possible *objects of the senses*. Indeed, the title of §24 of the B Deduction is "On the application of the categories to objects of the senses in general" (B150, underlining added). Let us call this *The Unbounded Scope Reading* of the B Deduction. By *Strong Kantian Non-Conceptualism* I mean a comprehensive interpretation of Kant's theory of cognition, including his transcendental idealism, that holds the following:

The human or non-human capacity for sensibility not only generates empirical intuitions and a priori intuitions that autonomously and independently provide objectively valid representational contents, but *also*, by means of these autonomous and independent, essentially non-conceptual cognitions, the faculty of sensibility contributes directly to the justification of epistemic and practical beliefs, by virtue of inherently normative and proto-rational factors that it builds into the essentially non-conceptual content of intuitions.¹

Now *if* Strong Kantian Non-Conceptualism is true, and *if* we construe the B Deduction according to The Unbounded Scope Reading, *then* the B Deduction is clearly unsound, since it cannot rule out the real possibility of "essentially rogue" objects of human sensory intuition that are not merely *unconceptualized* although ultimately conceptualizable under the Categories, but are also inherently *unconceptualizable* and *categorially anarchic* in that they operate in ways that directly

¹ See, e.g., Hanna (2005; 2008; 2011a; 2103a; 2016a).

violate Categorical rules.² This line of criticism is a specific and particularly powerful version of the claim that there is a fundamental *Gap* in the B Deduction.³ Nevertheless, there is another, more charitable reading of the B Deduction that I will call *The Bounded Scope Reading*, which says that it is an argument only for *the bounded scope* of the conceptual over manifest reality, that is, for the claim that the Categories necessarily apply to all and only actual and possible *objects of experience*. Correspondingly, the title of §22 of the B Deduction is this:

The category has no other use for the cognition of things than its application to objects of experience. (B146, underlining added)

And the final phrase of the conclusion of the argument presented by Kant in §26 of the B Deduction, whose title is “Transcendental deduction of the universally possible use of the pure concepts of the understanding in experience” (B161, underlining added) says this:

[T]he categories are conditions of the possibility of experience, and thus are valid a priori of all objects of experience. (B161, underlining added)

In this connection, it is crucial to recognize that not only Strong Kantian Non-Conceptualism, but also the claim that there is a Gap in the B Deduction according to The Unbounded Scope Reading, are both perfectly consistent with the claim that the B Deduction according to The Bounded Scope Reading is sound. And in fact, *that is precisely what I hold*:

Given Strong Kantian Non-Conceptualism, the B Deduction according to The Unbounded Scope Reading is an *unsound* argument, but the B Deduction according to The Bounded Scope Reading is a *valid and* (on the assumption that strong transcendental idealism⁴ is true) *sound* argument.

To be sure, most interpreters of the B Deduction are defenders of the canonical or orthodox interpretation and The Unbounded Scope Reading; and for those interpreters, the Gap is a Really Big Issue. So in reply to Kantian Non-Conceptualism and its version of the Gap argument, some recent defenders of the canonical or orthodox reading, and in particular James Conant, echoing Matthew Boyle, have criticized what they call “additive theories of rationality” (Boyle)⁵ and the “layer cake conception of human mindedness” (Conant).⁶ The Boyle/Conant critical reply in turn, is a specifically *Kant-scholarly* version of Wilfred Sellars’s critique of The Myth of the Given,⁷ as refracted through John McDowell’s critique of non-conceptualism in *Mind and World* and subsequent essays.⁸

² See Hanna (2016b).

³ Hanna (2011b).

⁴ I distinguish between *strong* and *weak* versions of Kant’s transcendental idealism. See, e.g., Hanna (2006: ch. 6).

⁵ Boyle (2016).

⁶ Conant (2016).

⁷ Sellars (1963).

Granting all that as backdrop, in this essay I do three things.

First, in section 2, I present a critical reply to the Boyle/Conant reply and its critique of the “additive” or “layer cake” conception of human minded and rationality, by spelling out the conception of human mindedness and rationality that undergirds Strong Kantian Non-Conceptualism, namely, what I call *Kant’s cognitive organicism*.

And second, having defused Byle/Conant-style worries about non-conceptualism in general and Strong Kantian Non-Conceptualism in particular, I present a general account of the nature of an object of experience (section 3), and then, building directly on that account, a *Kantian cognitive-organicist, bounded scope reading* of the B Deduction (section 4).

Third and finally, in section 5, I explore one extremely important philosophical payoff of the Kantian Non-Conceptualist affirmation of the Gap objection and its corresponding thesis that the B Deduction is unsound according to The Unbounded Scope Reading, yet sound according to The Bounded Scope Reading. More specifically, I spell out and defend a Kantian thesis about the necessary limits of natural science and the irreducibly and non-superveniently non-deterministic and anti-mechanistic *spontaneity* of human consciousness. I call this thesis *The Autonomy of Consciousness*.

And in that last connection, here is one crucial terminological caveat before I get fully underway. By *natural science*, in the context of this essay, I mean any *deterministic or indeterministic, mechanistic physics*. To be sure, Newtonian physics is a natural science in precisely this sense, together with specific commitments to determinism, the thesis that matter is essentially inert, absolute space and time, etc., as Kant was fully aware. But virtually all recent and contemporary versions of physics in the post-Newtonian era of relativity-theory and quantum-mechanics are *also* versions of deterministic or indeterministic, mechanistic physics, whatever their other important differences from Newtonian physics.⁹ Therefore, if my Kantian argument for The Autonomy of Consciousness is sound, then it holds not only for Newtonian natural science, the version of natural science with which Kant was familiar, but *also* for most recent and contemporary versions of natural science.

2. The Myth of the Myth of the Given All Over Again:

C.I.-Lewisian Philosophical Bogeymen versus Kant’s Cognitive Organicism

By a *philosophical strawman*, I mean a simplistic, obviously false, and easily-refutable philosophical view put forward by a philosophical critic in place of a complex, arguably true, and in any case difficult-to-refute view that is actually held by the critic’s interlocutor, in order greatly to lessen the critic’s burden of proof in philosophical criticism, and score cheap dialectical points in philosophical debate. And by a *philosophical bogeyman*, I mean a particularly *scary* philosophical strawman.

The so-called “additive” or “layer cake” conception belongs to what I have called *The Myth of the Myth of the Given*, an entirely philosophical-bogeyman-ish conception of non-conceptualism in general and Kant’s non-conceptualism in particular, that thoroughly misrepresents the nature of the human cognitive capacities according to *Strong Kantian Non-Conceptualism*. Indeed, criticizing the “additive” or “layer cake” conception has essentially no more impact on the Kantian Non-Conceptualist reading of the B Deduction than criticizing the incoherent combination of

⁸ See, e.g., McDowell (1994); McDowell (1998); and McDowell (2009).

⁹ See, e.g., Hawking (1988). By sharp contrast, e.g., Ilya Prigogine’s mathematical physics is *non-deterministic* and *anti-mechanistic*. See Prigogine (1997); and Hanna (2016c).

- (i) a causal-mechanistic, sense-datum conception of human sense perception,

together with

- (ii) a top-down, impositionist-volitionist, aka *conventionalist*, view of conceptual/logical rationality,

that we find in Logical Empiricism generally, and in the Harvard philosopher C.I. Lewis's epistemology more specifically, does. Indeed, the Boyle/Conant reply to a Strong Kantian Non-Conceptualist reading of the B Deduction completely misses the critical mark by aiming at an altogether bogus philosophical target, nothing but a *C.I.-Lewisian philosophical bogeyman*.¹⁰

Sharply on the contrary, according to Strong Kantian Non-Conceptualism, Kant's actual conception of human mindedness and rationality is a *cognitive organicism*. What do I mean by that?

It is well-known that in the *Critique of Pure Reason* (1781, 1787), the *Prolegomena to Any Future Metaphysics* (1783), and especially the *Metaphysical Foundations of Natural Science* (1786), Kant is a self-described *Newtonian deterministic mechanist* about the natural spacetime world, in which, as human animals, we must live, move, and have our being.

But as early as 1763, in "The Only Possible Argument in Support of a Demonstration of the Existence of God," Kant explicitly rejected the preformationist conception of biological generation and embryogenesis, according to which creatures pre-exist in their basic forms or structures, and require only the mechanical addition of bulk in order to develop. Instead, he defended *the epigenetic view*, whereby the basic forms or structures of creatures themselves are emergently generated by the spontaneous but also rule-governed operations of a vital source of some kind. More generally, the thesis of epigenesis in biology says that biological material is initially unformed and that form gradually emerges through the non-predetermined and (relatively, that is, input-based and triggered) spontaneous operations of an innate endogenous organizational or processing device in interaction with its environment.¹¹ Correspondingly, Kant even went so far as to assert that

it would be absurd to regard the initial generation of a plant or an animal as a mechanical effect incidentally arising from the universal laws of nature (Beweisgrund, 2:114).

Moreover, at the very beginning of his Critical period, in 1771, Kant wrote that

the real principle of reason [is grounded] on the basis of *epigenesis* from the use of the natural laws of reason (Refl, 17:492).

Sixteen years later, in 1787 in the B edition of the first *Critique*, Kant described his system of transcendental idealism as "a system of the epigenesis of pure reason" (B167). And not only that. In the *Prolegomena* he asserted the identity (or at least the strong continuity) of mind and life: "life is the subjective condition of all our possible experience" (Prol, 4:335). In the Introduction to the

¹⁰ See esp. Lewis (1956:36-66). In the main text, I highlight Lewis's being a *Harvard* philosopher, because Sellars, Boyle, and Conant are all, not altogether coincidentally, Harvardians by education or employment.

¹¹ See, e.g., Maienschein (2008).

Metaphysical Foundations of Natural Science, he denied that there could ever be a mechanistic science of psychology (MAN, 4:471). In the second half of the *Critique of the Power of Judgment* (1790), he not only asserted that “the mind is for itself is entirely life (the principle of life itself)” (KU, 5:278) and also that

it would be absurd for humans ever to ... hope that there might yet arise a Newton who could make comprehensible even the generation of a blade of grass according to natural laws (KU, 5:400),

but also worked out a number of fundamental concepts and methodological themes in the philosophy of biology, including the notion of a living organism, or self-organizing system, the various distinct kinds of teleology, and the special role of teleological concepts and teleological thinking in the natural sciences. Finally, in the unfinished “Transition” project in the *Opus postumum*, Kant also hypothesized the dual emergence of natural mechanisms and organismic life (including mind) alike from a single ontologically neutral but also non-static material substrate, the dynamic aether (Op. Post., 21:206-233, and 241).

So Kant’s commitment to universal Newtonian deterministic mechanism across the manifestly real natural world is, at the very least, conflicted. Indeed, and on the contrary, it is fully arguable that Kant is essentially an *anti-mechanist*, aka an *organicist*, about human mindedness and rationality, and that even more specifically, he holds an *epigenetic model of the rational human mind*.¹² Fully explicitly now, according to Kant’s cognitive organicism:

The several faculties or powers of the human mind are inherently and irreducibly normatively-guided, goal-specialized, and epigenetically spontaneous, functions of a living totality, the essentially embodied conscious and self-conscious human mind, aka “the rational human animal,” aka the rational human *organism*, that operate not only in relative independence of one another, but also organismically and vitally combine with one another according to an internal representation of systematic unity that teleologically governs all embodied human cognition, affect/desire/emotion, willing, and action.

This Kantian cognitive organicist conception of human mindedness and rationality, in turn, is just about as far from the “additive” and “layer cake” conceptions of human mindedness and rationality as it is possible to be.

And one last thing in this connection. An interesting and instructive variant on the “additive” and “layer cake” critiques of Strong Kantian Non-Conceptualism, that is *not* however based on C.I.-Lewisian philosophical bogeymen, has been formulated by Dennis Schulting.¹³ Schulting’s variation is a version of the classical platonic Third Man Argument, as applied to cognitive capacities, which says that if two basic capacities are relatively independent, then they need to be unified by means of a third capacity, which in turn requires a fourth capacity that unifies the other three... and so-on, in a viciously endless way.

The Strong Kantian Non-Conceptualist, Kantian cognitive organicist response is that there is no vicious regress, simply because the ground of the unity of the two basic capacities, or of any other capacities in addition to those, is not a further *capacity*, but instead the living totality *itself*,

¹² See Hanna (2001); Mensch (2013); and Hanna (2014).

¹³ Schulting (2012).

the whole rational human organism. The *notion* of the rational human organism *explanatorily* precedes the *notions* of any of that organism's several capacities or powers; and the *existence* of the rational human organism *ontologically* precedes the existence of any of that organism's several capacities or powers, which may also, of course, emerge diachronically and be activated successively. For example, normal human infants are sensible animals at least a year or so before they are conceptual/logical animals (not to mention linguistic animals), yet the whole organism, actually or potentially, properly contains both basic cognitive capacities/powers. The (notion of the) cognitive- organismic whole precedes the (notions of its) proper organismic parts. Hence no regress.

3. What is an Object of Experience?

In *On The Form and Principles of the Sensible and the Intelligible World*, aka the *Inaugural Dissertation*, Kant says that

in the case of sensible things and phenomena, that which precedes the logical use of the understanding is called *appearance*, while the reflective cognition, which arises when several appearances are compared by the understanding, is called *experience* [and] [t]here is no way from appearance to *experience* except by reflection in accordance with the logical use of the understanding.... [and in addition,] the common concepts of *experience* are called *empirical*, and the objects of experience are called *phenomena*, while the laws ... of *experience* generally and all sensitive cognition are called the laws of phenomena. (De mundi, 2:394, underlining added)

Eleven years later, having greatly elaborated this basic thought, Kant tells us in the first *Critique* that

by [the critique of pure reason] I do not understand a critique of books or systems, but a critique of the faculty of reason in general, in respect of all the cognitions after which reason might strive independently of all *experience*, and hence the decision about the possibility or impossibility of a metaphysics in general, and the determination of its sources, as its extent and boundaries, all, however, from principles (Axii, underlining added),

that

experience itself is a kind of cognition requiring the understanding, whose rule I have to presuppose in myself before any object is given to me, hence *a priori*, which rule is expressed in concepts *a priori*, to which all objects of *experience* must therefore necessarily conform, and with which they must agree (Bxvii-vii, underlining added),

that

nature [is] the sum total of all objects of *experience*" (Bxix, underlining added),

that

the critique has not erred in teaching that the object should be taken in a twofold meaning, namely as appearance or as thing in itself; [that] its deduction of the pure concepts of the understanding is correct, and hence the principle of causality applies to things taken in the first sense, namely insofar

as they are objects of experience, while things in the second meaning are not subject to it (Bxvii, underlining added),

that

in synthetic judgments I must have in addition to the concept of the subject, something else (*X*) on which the understanding depends in cognizing a predicate that does not lie in that concept as nevertheless belonging to it ... [hence] [i]n the case of empirical judgments or judgments of experience there is no difficulty here...[f]or this *X* is the complete experience of some object that I think through some concept *A*, which constitutes only a part of this experience.... [and] although I do not at all include the predicate of weight in the concept of a body in general, the concept nevertheless designates the complete experience through a part of it, to I can therefore add still other parts of the very same experience as belonging to the former (A8/B11-12, underlining added),

that

[t]he understanding is thus not merely a faculty for making rules through the comparison of the appearances; it is itself the legislation for nature, i.e., without understanding there would not be any nature at all, i.e., synthetic unity of the manifold of appearances in accordance with rules; for appearances, as such, cannot occur outside us, but exist only in our sensibility.... [yet] [t]he latter, however, as the object of cognition in an experience, with everything it may contain, is possible only in the unity of apperception (A126-127, underlining added),

that

all empirical cognition of objects is necessarily in accord with [a priori or pure] concepts, since without their presupposition, nothing is possible as object of experience (A93/B125-126, underlining added),

and, at the end of the core argument of the B Deduction, that

all synthesis, through which even perception itself becomes possible, stands under the categories, and since experience is cognition through connected perceptions, the categories are conditions of the possibility of experience, and are thus also valid *a priori* of all objects of experience. (B161, underlining added)

Between the A or 1781 and B or 1787 editions of the first *Critique*, in the 1783 *Prolegomena*, Kant also says:

*Empirical judgments, insofar as they have objective validity, are judgments of experience; those, however, that are *only subjectively valid* I call mere judgments of perception. The latter do not require a pure concept of the understanding, but only the logical connection of perceptions in a thinking subject. But the former always demand, in addition to the representations of sensory intuition, special *concepts originally generated in the understanding*, which are precisely what make the judgment of experience objectively valid. (Prol, 4:298, underlining added)*

And in the 1797 *Anthropology* he says:

Experience is empirical cognition, but cognition (since it rests on judgments) requires reflection (*reflexio*), and consequently consciousness of activity in combining the manifold of representations according to a rule of the unity of the manifold; hence it requires concepts and thought in general (as distinct from intuition). (Anth, 7:141, underlining added)

So what is *experience* for Kant?

According to the epistemology and metaphysics of his Critical period—which I take to be 1781-1787, first discovered during what I call his “proto-Critical” period, 1768-1772, worked out in immense detail between 1772 and 1780, and then finally fully presented in the first part of the “Transcendental Doctrine of Elements” in the *Critique of Pure Reason*, the Transcendental Aesthetic” (A19-49/B33-73)—our original, direct encounters with the manifest or phenomenal world occur via object-dependent, sensible, immediate or direct, thought-prior, essentially non-conceptual mental representations or *Vorstellungen*, namely, empirical “intuitions” or *Anschauungen*, independently of the conceptual, logical-inferential, and judgmental operations of the understanding or *Verstand*. These empirical intuitions, in turn, are necessarily accompanied by inner and outer “sensations” or *Empfindungen*, and presented under the intrinsic structural constraints of the “forms of intuition,” the pure or non-empirical intuitional representations of space (the immediate form of outer sense) and of time (the immediate form of inner sense). Moreover, for Kant, according to what I call his *strong transcendental idealism*, these pure intuitions are *identical to* space and time, thereby constituting the fundamental metaphysical fact of their “transcendental ideality” (A26-29/B42-44, A33-36/B49-53).

Insofar as those empirical intuitional worldly encounters are conscious, they are what Kant calls “perceptions” (*Wahrnehmungen*) (B160), and their objects are “appearances” (*Erscheinungen*), which in turn are defined as “the undetermined object[s] of ... empirical intuition” (A20/B34). The apparent objects of *inner* sense are conative, forward-directed events in the temporally-ordered stream of conscious phenomena making up the empirical self and its “inner experience” (Anth, 7: 141), and the apparent objects of outer sense are spatiotemporal things standing in causal relations of “affection” (namely, felt impacts on the sensory organs) to the human body of the perceiver.

Now as early as 1770, and throughout the rest of his philosophical life, Kant consistently uses the term “experience” in a technical sense, to refer to objective and intersubjectively-communicable *judgments*, necessarily involving not only empirical intuitions and perceptions, but also, and essentially, *the cognitive outputs of the understanding*, including empirical concepts, logical forms, schematized higher-order “pure concepts of the understanding,” aka Categories, and unifying “apperception” or self-consciousness. These judgments are also called “judgments of experience” (*Erfahrungsurteile*). So *human experiences*, per se, are nothing more and nothing less than judgments of experience, and therefore human experience, as objective, is inherently shot through with conceptual, logical, metaphysical, and unifying apperceptive/self-conscious structure. Judgments of experience express “propositions” (*Sätze*) as their truth-evaluable “contents” (*Inhalte*) or intensional “meanings” (*Sinne, Bedeutungen*), also known as *contentful* (as opposed to “empty”) or *objectively valid* (as opposed to empirically non-meaningful, or objectively invalid) “thoughts” (*Gedanken*).

The ill-fated distinction, made in the *Prolegomena*, between “judgments of perception” and “judgments of experience”, actually contradicts the explicit claim made by Kant in the B edition of the first *Critique*, to the effect that necessarily, all judgments are *objectively* valid, not merely *subjectively* valid, hence so-called “judgments of perception” cannot count as *judgments* according to that criterion (A51/B75, B142).

Directly corresponding to the objectively valid propositional contents of judgements of experience are the “objects of experience”: spatiotemporally-extended, forceful, substantial, causally efficacious and mutually-interacting, law-governed, modally-structured, actual unified things falling under all the Categories. Indeed, this correspondence is no accident, given the transcendental ideality of space and time, and assuming the truth of Kant’s strong transcendental idealism, essentially captured by “the conformity thesis”, aka “Kant’s Copernican Revolution”, which says that necessarily, all manifest or phenomenal objects conform to the innately-specified, non-empirical structures of sensible (intuitional) and discursive (conceptual) human cognition, *as specifically opposed to* the classical but philosophically disastrous converse thesis held by Rationalists and Empiricists alike, which would have our cognitions passively conforming to human-mind-independent objects, and in particular conforming to non-sensory and non-spatiotemporal, yet also mysteriously causally efficacious, substances: things in themselves or noumena (Bvii-Bxviii).

Just as the proper object of an empirical intuition is an appearance, namely, “the undetermined object of an empirical intuition”, so too the proper object of a judgment of experience is an object of experience, the *determined* or *determinate* object of empirical intuition, so-determined and so-determinate, precisely because of the object-of-experience’s inherent empirical-conceptual, logical, apperceptive/self-conscious, judgmental/propositional, and ultimately *Categorical* structures, as yielded by transcendental idealism. By contrast, what makes an appearance an “undetermined” object of empirical intuition, is precisely that it is an empirical thing *just insofar as* it is perceptually represented in a “blind”, essentially non-conceptual, non-logical, non-self-conscious, non-judgmental/non-propositional, and non-Categorical way, under the spatiotemporal pure forms of intuition alone, “for appearances can certainly be given intuition without functions of the understanding” (A90/BB122).

Thus *the sensible world*, made up of spatiotemporal appearances, accessed by perception, that is fully shared by rational human cognizers *quâ* sensible cognizers with non-rational, human or non-human, conscious animals, aka “babes and beasts,” is sharply distinct from *the experiential world*, including the empirical self and its “inner experience” (Anth, 7:141), that is made up of outer and inner objects of experience under necessary “laws of experience” (De mundi, 2:394) under the Categories, that is shared by rational human cognizers *only* with other discursive animals, including rational, sense-perceiving aliens, if there are any, but *not* by babes or beasts.

In turn, this sharp sensible world/experiential world distinction is vividly confirmed by “aesthetic judgments of taste”, which, like the ill-fated so-called “judgments of perception”, are subjective and non-conceptual, insofar as their sensible content is constituted by our feelings of pleasure, yet sharply unlike “judgments of perception”, because judgments of taste are also disinterested, self-conscious or reflective, and intersubjective, by virtue of their intentionally focusing on *the purposive forms* of appearances, cognized as if they were designed to harmonize with our imagination and understanding for the production of disinterested pleasure, hence cognized as beautiful (KU, 5:203-244).

Correspondingly, and crucially, Kant’s metaphysically-loaded term “possible experience” refers to the phenomenal world, including our empirical selves, only insofar as it *conceptually accessible to* discursive animals and also *explicable by* (for example, Newtonian) natural science and its theory-driven “scientific knowledge” or *Wissen*. But since for Kant we must “deny” or restrict *Wissen* in order to make room for “faith” or *Glauben* (Bxxx), it follows that the metaphysically-loaded term “possible experience” does *not* refer to the larger spatiotemporal, categorially-*unrestricted*, actual and non-actual, sensible world of appearances that is essentially

non-conceptually accessible by rational human cognizers *quâ* sensible cognizers, babes, and beasts alike. On the contrary, independently of and prior to “the laws of experience,” the sensible world of appearances remains directly cognitively available to all conscious, perceiving, desiring, feeling, willing, and acting animals, including all human animals, via “blind” outer and inner sensory intuition—for example, the arbitrary ordering of appearances in the “subjective sequence of apprehension” (A193/B238)—also via the “natural piety” of our aesthetic contemplation of the beauty of natural things, and finally via moral faith, itself closely allied with our cognition of the sublime in nature (KU, 5: 244-266), *independently of and prior to the experiential world*, hence forever beneath and beyond the deterministic or indeterministic, mechanistic, matter-based or energy-based, mathematical cognitive radar of natural science. I will come back to these extremely important points in section 5.

4. A Kantian Cognitive-Organicist, Bounded Scope Reading of the B Deduction

As I pointed out in section 1, Strong Kantian Non-Conceptualism is perfectly consistent with a charitable reading of the B Deduction which says that it is actually an argument only for *the bounded scope* of the conceptual over manifest reality, that is, for the claim that the Categories necessarily apply to all and only actual and possible *objects of experience*, but *not* an argument for the unbounded scope of the conceptual over manifest reality, that is, *not* an argument for the claim that the Categories apply to all and only actual and possible *objects of the senses*, including all *appearances*.

To be sure, Kant seriously misleads readers of the first *Critique* about the actual scope of the B Deduction, by virtue of the title of §24 of the B Deduction, which as I mentioned above, is “On the application of the categories to objects of the senses in general” (B150, underlining added). And in §21 he writes that it is only “by the explanation of [the category’s] *a priori* validity in regard to all objects of our senses [that] the aim of the deduction will first be fully attained” (B145, underlining added). So it is also more than merely possible that Kant himself was fatally confused about this essential point—namely, the essential difference between

(i) objects of the senses, and

(ii) objects of experience,

and the corresponding essential difference between

(i*) the unbounded scope of the Categories over manifest reality, and

(ii*) the bounded scope of the Categories over manifest reality,

—as the mind-boggling doctrine of the “transcendental synthesis of the imagination” that he presents in the second and third paragraphs of §24 strongly suggests. Certainly, within 25 years, Hegel had most brilliantly exploited this (more than merely possible) fatal Kantian confusion and

mind-bogglement,¹⁴ run it through his magical philosophical alembic, and turned it into absolute idealism.¹⁵

Nevertheless, when the B Deduction is charitably construed according to Strong Kantian Non-Conceptualism, Kant's cognitive organicism, and The Bounded Scope Reading, I think it is a valid and also (under the assumption of strong transcendental idealism) sound argument. So here, in turn, is a brief step-by-step reconstruction of the core argument of the B Deduction, the argument in §26, pointedly entitled "Transcendental deduction of the universally possible use of the pure concepts of the understanding in experience" (B159, underlining added)—and NOT entitled, "Transcendental deduction of the universally possible use of the pure concepts of the understanding in sensibility". I will proceed by quoting each step of the argument, and then offering a brief commentary on it.

(1) "First of all I remark that by synthesis of apprehension I understand the composition of the manifold in an empirical intuition, through which perception, i.e., empirical consciousness of it (as appearance), is possible". (B160)

Commentary: Perception is not just a passive sensory consciousness of a manifold of given qualities. In order to perceive, a certain relatively spontaneous act of the mind is necessary, and this is the synthesis of apprehension. And we know from the A Deduction that the synthesis of apprehension is the act of bringing together sensory contents under a unitary spatiotemporal form—that is, the form of a unified sensory field at a given moment and as spread out in a given space. The internal content of the field is represented as a holistic, unified spatial and temporal pattern or array (a *Gestalt*) but is otherwise unstructured.

(2) "We have forms of outer as well as inner sensible intuition *a priori* in the representation of space and time, and the synthesis of apprehension of the manifold of appearance must always be in agreement with the latter, since it can only occur in accordance with this form". (B160)

Commentary: The representations of space and time, as *a priori* subjective forms of intuition that are invoked in the synthesis of apprehension, are also necessary conditions of the perception of objects. This is simply a reminder of something already proved in the Transcendental Aesthetic, namely that (the representations of) space and time are the necessary *a priori* forms of all empirical intuitions (sense perceptions) of appearances.

(3) "But space and time are represented *a priori* not merely as forms of sensible intuition, but also as intuitions themselves (which contain a manifold), and thus with the determination of the unity of this manifold in them (see the Transcendental Aesthetic)". (B160)

Commentary: In the Transcendental Aesthetic Kant argued that space and time could be thought as empty of all sensory objects, and that pure intuitions of space and time—as infinite given wholes—were also possible. And at A712-A738/B740-B766 he also argues that geometric truths are demonstrated by "constructions" employing the representation of pure space. But it is crucial

¹⁴ Yes, this is an intentionally silly neologism. Its use is justified *a priori* on the grounds that I wanted to make you chuckle.

¹⁵ See Förster (2012); and Hanna (2013b).

to recognize that space and time are not empirical objects of any sort, and if we try to imagine them as merely abstracted from empirical objects they are strictly speaking nothing at all: space or time in this sense would be merely an “empty intuition without an object, *ens imaginarium*” (A292/B348). Nevertheless according to Kant it is still possible to become reflectively self-conscious of (the representation of) space and (the representation of) time. To do so is thereby to generate, essentially non-conceptually, not merely subjective a priori necessary forms of empirical intuition, but instead pure or “formal intuitions,” which also apperceptively, and thus self-consciously, represent space and time as total unified frameworks of relations independently of any particular empirical objects in space and time (B160 n.).

(4) “Thus even unity of the synthesis of the manifold, outside or within us, hence also a combination with which everything that is to be represented as determined in space or time must agree, is given a priori along with (not in) these intuitions, as condition of the synthesis of all apprehension”. (B161)

Commentary: Because the synthesis of apprehension presupposes the pure or formal intuitions of space and time, it follows that the formal unity of these pure intuitions—as distinct from the sensory content of the intuitive manifold—is given as an experience-independent presupposition of the synthesis of apprehension.

(5) “But this synthetic unity can be none other than that of the combination of the manifold of a given intuition in general in an original consciousness, in agreement with the categories, only applied to our sensible intuition.” (B161)

Commentary: The formal unity of pure intuition, as a subjective unity, must be grounded in the original synthetic unity of apperception. But apperception is also the ground of the unity of the understanding, and every synthetic act of the understanding presupposes the categories. So since the apperception that underlies the formal unity of pure intuition is the same as the apperception that underlies the unity of the understanding, it follows that the synthesis of apprehension falls necessarily under the categories.

(6) “Consequently all synthesis, through which even perception itself becomes possible, stands under the categories,” (B161)

Commentary: Perception is an empirical intuitional consciousness of the sensory object or appearance. Now perception is possible only via a synthesis of apprehension, and hence by step (5) presupposes the categories.

(7) “... and since experience is cognition through connected perceptions,” (B161)

Commentary: Just as perception is distinct from mere sensory consciousness of affection, so too experience is distinct from mere perception. A perception is a consciousness of a sensory manifold or field, as apprehended (= an appearance at a moment in time and/or in location in space). An experience by contrast is a rule-governed complex of perceptions, and its object is not a bare or unconceptualized apparent object but rather an empirical state-of-affairs—a complex, determinate

object represented by means of concepts and judgment. Hence an experience is both distinct from a perception, and yet *built up from* perceptions by conceptualization and judgmental synthesis.

(8) “...., the categories are conditions of the possibility of experience [of objects], and are thus also valid a priori of all objects of experience.” (B161, underlining added)

Commentary: Notice the crucial move here from “conditions of the possibility of experience [of objects]” to “conditions of the possibility of all objects of experience.” Let us call “experiences of objects” EOs and let us call “objects of experience” OEs. So in making this crucial move, Kant is presupposing the thesis *that necessarily, EOs = OEs*. Now it is clear that *only* the thesis of *strong* transcendental idealism will make this presupposition true and thus validate the step from the conditions of the possibility of EOs to the conditions of the possibility of OEs. So, interpreting Kant charitably, he must be assuming the truth of strong transcendental idealism for the purposes of the B Deduction. Because the categories are necessarily applicable to all perceptions (step (6)), and because experience is synthetically generated from perceptions by means of conceptualization and judgment (step (7)), it follows that the categories are necessarily applicable to, and hence necessary conditions of the possibility of, experience. But all experiences are representations *of objects*; and by the thesis of strong transcendental idealism, the contents of those representations are *token identical to* the objects of experience.¹⁶ Therefore, the categories are necessary a priori conditions of the possibility of all objects of experience. QED

Of course, whole libraries could be filled with books and articles about the B Deduction.¹⁷ But for my purposes in this essay, if I am correct in what I have already argued, then this in turn means that the B Deduction is actually an argument *only for the necessary application of the Categories to the natural-scientifically-domesticated part of manifest reality, and no further than that*. As we saw in section 3, for Kant, “object of experience” is a technical term that means *any object of the human senses that also necessarily corresponds to judgments of experience and falls under the schematized Categories and the Principles of the Understanding*. In turn, since for Kant the scope of natural science—that is, deterministic or indeterministic, mechanistic physics under a specifically Newtonian interpretation—is strictly fixed by the schematized Categories and the Principles of the Understanding, then all and only the objects of experience are *natural-scientifically-domesticated objects*—that is, law-determined, mechanical, material objects that can be fully (and even reductively) explained by Newtonian natural science, or indeed by any deterministic or indeterministic, mechanistic physics. So construed, then the B Deduction is not only a valid and sound argument under the appropriate charitable restrictions, but also *an argument for systematically demarcating the metaphysical and epistemological limits of Newtonian (or indeed any) natural science*, since essentially rogue objects will be all and only those objects that violate one or more of the Categories in some specific way or ways, hence *all and only those objects that cannot be domesticated by Newtonian (or indeed any) natural science*.

In the next and final section, I will briefly explore one extremely important philosophical payoff of reading the B Deduction this way.

¹⁶ See Hanna (2001: chs. 1-2).

¹⁷ See, e.g., Schulting (2018).

5. The Limits of Natural Science and The Autonomy of Consciousness

The extremely important philosophical payoff of The Bounded Scope Reading that I want to explore is a new reading of the Second Analogy of Experience. This reading focuses, not on the phenomenological fact of *the objective series of perceptions* characteristic of scientifically-domesticated objects of experience, but instead on the phenomenological fact of *the subjective series of perceptions*, whereby the perceiving subject's intentional directedness to (for example) the various parts of a house, or the movements of a boat, manifests the freely-chosen, self-guided, spontaneous agential control (including reversal of ordering, and random ordering) of her conscious attention to objects and their parts (including things, properties, facts, states, events, and processes) in space and time.

The Second Analogy is of course the most famous of the Analogies, because it contains Kant's brilliant response to Hume's skeptical analysis of our idea of causal necessity in nature. It goes like this: "all alterations occur in accordance with the law of the connection of cause and effect" (B232). This principle clearly builds on the first Analogy. In a nutshell, Kant is saying that the temporal succession of changing "states" or (*Zustände*) of a single One Big Substance (= "alterations" or *Veränderungen* of that substance) must include within itself a necessary connection between earlier and later states, such that the earlier states are nomologically sufficient for later ones. That is because the category of cause/effect derives from the logical form of the hypothetical, which Kant understands as:

Logically necessarily, if P then Q (that is, the antecedent is strictly sufficient for the consequent under a logical law).

The cause/effect relationship, in other words, is the logical consequence relation as applied to objects in general. Now the temporal schema restricts this relation to asymmetrically successive moments in time ("time's arrow"). Hence the schematized category of cause/effect is the logical sufficiency relation as mapped onto asymmetrically successive moments in time, which by virtue of its dependence on time makes it a *synthetically sufficient connection under a general law*, that is, a nomologically synthetically sufficient connection. A "state" or *Zustand* of the One Big Substance is the instantiation of a property at a time somewhere in the material world. So necessarily, whenever an earlier state is nomologically sufficient for a later state, *then* the later one is the effect and the earlier one is the cause. Perceptions of states that are ordered in this way—Kant's famous example is the successive positions of a boat floating downstream—are *objective or law-governed* orderings.

By contrast, perceptions of states that are not so ordered are merely *subjective or arbitrary (beliebig) orderings*. Kant's equally famous example is the succession of sensory objects of someone's gaze flitting over a house, as per the crucial text that I quoted as the epigraph for this essay:

In the ... example of a house my perceptions could have begun at its rooftop and ended at the ground, but could also have begun below and ended above; likewise, I could have apprehended the manifold of empirical intuition from the right or the left. In the series of these perceptions there was therefore no determinate order that made it necessary when I had to begin in the apprehension in order to combine the manifold empirically....[T]he subjective sequence of apprehension.... proves nothing about the connection of the

manifold in the object [of experience], because it is entirely arbitrary (*ganz beliebig*). (A193/B238)

The fundamental difference between the objective ordering and the merely subjective or arbitrary ordering is also the fundamental difference between the objective, material, and natural-scientifically explicable world given in outer sense and determinately represented by judgments of experience, namely, nomologically-determined successive states of the external or material world, and the merely subjective conscious world given in inner sense, represented by empirical apperception, insofar as it is directly expressive of the subject's "power of choice" or *Willkür*, namely, relatively spontaneous successive conscious mental states, subject to conscious attentive control. But above all, notice that this implies the following striking Kantian doctrine: *the relative spontaneity of the arbitrarily-ordered, consciously controlled, stream of consciousness* is a necessary condition of the representation of an objective external world, even though such streams of consciousness are *essentially rogue objects*.

Therefore, against the backdrop of Strong Kantian Non-Conceptualism, Kant's cognitive organism, and The Bounded Reading of the B Deduction, his commitment to the real existence of the subjective or arbitrary series of perceptions as intuitively given in inner sense, entails what, in section 1 above, I called *The Autonomy of Consciousness*. More specifically, however, by "the autonomy of consciousness", I mean

- (i) the irreducibility of consciousness to, and the non-supervenience of consciousness on, deterministic, mechanistic natural laws and contingent facts about inert matter, conjoined with
- (ii) the rational human subject's causally efficacious, freely-chosen, self-guided, relatively spontaneous agential control over the movements of her own living minded animal body, as an egocentrically-centered source of sense perception and basic intentional action.

In this way, Strong Kantian Non-Conceptualism *plus* Kant's cognitive organicism *plus* The Bounded Scope Reading of the B Deduction

not only (i) charitably preserve the validity and (under the assumption of strong transcendental idealism) the soundness of the B Deduction in the face of objections from Strong Kantian Non-Conceptualism against the B Deduction's soundness according to The Unbounded Scope Reading,

and (ii) provide a clear, distinct, and systematic way of demarcating the metaphysical and epistemic limits of natural science,

but also (iii) show that Kant anticipates recent and contemporary arguments in the philosophy of mind for the irreducibility and causal efficacy of the embodied rational human animal mind, and for the conscious, self-conscious, incompatibilistically-free human person's spontaneous agential sourcehood and rational control-and-guidance of choices and intentional actions, by 200+ years.¹⁸

¹⁸ See, e.g., O'Shaughnessy (1980/2008); Hanna and Thompson (2005); Hanna and Maiese (2009); and Hanna (2018).

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