

Kenneth R. Westphal

Kant's Transcendental Deduction of the Categories

Critical Re-Examination,
Elucidation and Corroboration

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C r i t i k
d e r
reinen Vernunft

von
Immanuel Kant,
Professor in Königsberg,
der Königl. Academie der Wissenschaften in Berlin
Mitglied.



Sechste hin und wieder verbesserte Auflage.

R i g a ,
bey Johann Friedrich Hartnoch.
1787.

Kant's Transcendental Deduction
of the Categories

Critical Re-Examination, Elucidation
and Corroboration

Kant's Revised Second (B) Edition (1787), German Text *with* New Parallel
Translation, *for* Students, Cognitive Scientists, Philosophers & Specialists.

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For Jeff Edwards,
generous friend,
keen Critical conscience, well-boned in Marburg

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Dear Reader,

Welcome to some refreshed considerations of Kant's revised Deduction of the Categories! I hope my elucidations may prove fruitful, whether *pro* or *contra*.

– K.R. Westphal

Istanbul, 20 Dec. 2020

1 INTRODUCTION

Concerning Kant's 'Deduction of the Categories', Sir Peter Strawson wrote:

Kant's genius nowhere shows itself more clearly than in his identification of the most fundamental of these conditions [of the very possibility of self-conscious experience] in its most general form ... These are very great and novel gains in epistemology, so great and so novel that, nearly two hundred years after they were made, they have still not been fully absorbed into the philosophical consciousness. (Strawson 1966, 29)

Building upon Strawson's insights (also in his subsequent writings), I submit that my previous studies of Kant's *Critique of Pure Reason* (Westphal 2004, 2020) have made significant further strides in identifying and justifying Kant's highly original, profoundly important insights, and demonstrating their crucial importance to theory of knowledge, to philosophy of mind and to cognitive sciences. This brief book solely addresses Kant's own 'Deduction'. By design it is independent of my other two books, of the commentary genre and debate, and is as lucid and exoteric as possible. The issues Kant addresses in the 'Deduction' pertain directly to issues centrally debated today in philosophy and in cognitive sciences, especially in epistemology and in theory of perception, regarding self-consciousness, self-ascription and perceptual judgment. Yet Kant's important insights into these issues are clouded by prevalent misunderstandings of Kant's 'Deduction' and its actual aims, scope and argument. This edition, fresh and accurate translation and concise commentary aims to serve these contemporary debates and to refresh continuing scholarship on Kant's *Critique of Pure Reason*.

Kant's Transcendental Deduction of the Pure Concepts of the Understanding, *i.e.*, of the twelve categories, has been widely criticised for failing to demonstrate that the categories are and must be applicable to particular objects and events we sense in our surroundings (esp. Guyer 1987, 1992; Howell 1992). Förster (1989a, b) suggests that Kant's aims in 'the Deduction' (to adopt a brief designation for Kant's chapter) are more specific and limited than its critics assume. Bird (2006a, 323) concurs, as do I. Hence *Kant's Transcendental Proof of Realism* (2004; henceforth 'KTPR') said only the necessary minimum about Kant's Deduction. There I suggested (KTPR,

11) that Kant's transcendental deduction requires thorough reconsideration based upon Michael's Wolff's (1995, 2009, 2017) landmark reconstruction of Kant's completeness proof of his Table of Judgments. There (*KTPR*) I sought *inter alia* to provide proper context for such reconsideration of Kant's Deduction of the categories. I have found since that still more context is required to reconsider Kant's Deduction, which I offer in *Kant's Critical Epistemology* (2020; henceforth 'KCE'), where again I say only the necessary minimum about Kant's Deduction itself.

One fortunate result of this extensive stage setting is to *unburden* the aims and scope of Kant's Deduction! This affords independent consideration of Kant's Deduction, without entangling it in further issues Kant addresses elsewhere in the *Critique of Pure Reason* (henceforth: 'KdrV'). Such unencumbered, independent consideration of Kant's Deduction is the aim of this brief commentary. Kant's aim in the 'Deduction' is to show that not even the minimal, incomplete thought, 'I think ...', is humanly possible without *using* (if implicitly) the categories in some *actual* context on some specific *occasion* to at least formulate a judgment about some (presumptive) particular(s). Constraints on humanly identifiable particulars are examined subsequently, in Kant's 'Analytic of Principles'. This basic division of Kant's tasks has been chronically neglected in the critical literature.

My elucidations aim to identify Kant's key issues, reasons and proof in the Deduction, thus fulfilling critical interpretive obligations incurred by my previous two books. To provide clarity and focus on Kant's reasons and reasoning, this concise commentary sets aside Kant's first edition ('A') Deduction and also interpretive controversies. I do not discount Kant's first edition Deduction, but Kant's success is secured by his revised ('B') edition. Readers interested in the scholarly debates may consult de Vleeschauer (1937), Bird (2006a) and Motta *& alia* (2021); experts will identify views I take on many of those issues. There is now so much commentary responding to commentary that there is insufficient direct engagement with Kant's text and issues. What *are* Kant's issues is open to scholarly examination, interpretation and debate, but Kant's carefully wrought *text* must be the fundamental basis for all such study, interpretation and debate. Here *Kant's* text is central.

One controversial issue should be noted, to set aside. I do not believe Kant's Critical philosophy requires his transcendental idealism; neither do I think any of his arguments for it prove that idealism. My reasons for these strong claims are detailed elsewhere (*KTPR*). Part of what I highlight (also in *KCE*) is that Kant often develops parallel yet separable lines of justification for his main theses, and some of

these lines of justificatory reasoning are *more* cogent than Kant himself appreciated. This controversial issue can be set aside because Kant's Deduction addresses issues of *validity* which are *neutral* with regard to transcendental idealism. Setting aside Kant's transcendental idealism may seem to Kant's scholars a very large, tendentious concession, yet my elucidations point out the vast extent to which Kant's published B Deduction is simply independent of Kant's cherished transcendental idealism. This should not be so surprising, because Kant's B Deduction focuses on issues of *validity*, whereas transcendental idealism concerns issues of ontology and cognitive process (see below, §2.15).

Regardless of my own views, as an interpretive and critical point it is crucial to specify the extent to which, or the regards in which, Kant's Deduction does (not) require transcendental idealism. My elucidations aim to show how Kant's Deduction can (and should) be understood without appeal to transcendental idealism, which would too easily short-circuit Kant's issues, aims and reasoning. Why and how so is indicated briefly below (§2.15) by distinguishing two senses of 'constitution of objects' of awareness. Relevant passages are noted subsequently (§3).

The next section (§2) states plainly and directly key points required to understand and to assess Kant's B Deduction. Those seeking grounds for my remarks should please consult the two indicated books; readers willing to accept my guides, albeit provisionally, may wish to read Wolff's (2017) concise account of why Kant's Table of Judgments is 'precise' in the sense that none of these judgmental forms is redundant. §3 presents Kant's text and my translation of the B Deduction (*verso*) together with my elucidations (*recto*). §§4 and 5 present and respond to two main Critical questions regarding my elucidation of Kant's Deduction. §6 provides analytical contents, including that of Kant's 'Deduction'.

I describe my commentary as providing 'elucidations': sufficient necessary minimum information to re-consider Kant's B Deduction to better understand its actual stated aims, scope, character and success. Sceptical inquirers may regard my elucidations as interpretive hypotheses, to be considered and tested, though such testing requires scholars *also* to test their own preferred approach and presumptions. Ultimately such inquiry and re-consideration is necessary also in scholarly debate, yet that over-grown genre has come to impede such re-consideration. Detailed scholarly debate is best suspended for the present, for the sake of refreshed inquiry, consideration and above all *reading*. Neither is this commentary an introduction to Kant's *Critique of Pure Reason*; readers seeking such background may consult Buroker (2006), Bird (2006a, b); or Baum (1986), Haag (2007).

2 KANT'S B DEDUCTION: BASIC CONSIDERATIONS FOR ITS UNDERSTANDING

2.1 The brevity of Kant's designated Deduction (*KdrV* §26) indicates that much of Kant's aim in the two main sections (*Abschnitten*) of his chapter on the Deduction of the categories is to circumscribe his issue, which indeed he does, exactly in accord with his cardinal distinction between two distinct, integrated roles played by intellect and sensibility within human experience and knowledge (B75–6, 304–5). Both roles involve various sorts of combination, conjoining or 'synthesis', all of which are guided or structured by our most fundamental judgmental forms and categories. This claim concerns the *forms* of these various conjoinings! That all these forms of combination are guided by the same formal or structural guides (types) does not entail numerical identity between any pair of effected (token) conjoinings. In particular, Kant's account of such conjoining or synthesis expressly allows for numerically distinct combinations required for sensory-perceptual presentations, in contrast to those combinations required for explicitly self-conscious (apperceptive) judgments. Kant is quite alert to issues of sensory-perceptual 'binding' (as it is now called) as well as to issues of information extraction from sensory-perceptual intake or indeed from sensory presentation. Sensory-perceptual combination and *sensory* presentation are effected sub-personally by cognitive functioning of the transcendental power of imagination (§24, B151–2, *ll.* 951–2, 961–77, 980–91; §26, B162, *ll.* 1100–10; *cf.* A79/B104–5). Integration of conceptual *classifications* of sensed, perceived particulars and their features, required to form explicit cognitive judgments (however tentative, approximate or precise) about them, Kant assigns to understanding. (Kant's contrast between these two functions is my reason for contrasting 'intellect' to 'sensibility' just above.)

2.2 A helpful pointer about Kant's key term 'transcendental' is this: In much Mediaeval metaphysics, the 'transcendental' categories are supposed to pertain to any and all even possible being(s). Kant re-assigns the term to designate those *a priori*, formal aspects of human cognisance required for any and all even possible human self-conscious thought about or experience of particulars.

2.3 The structure of Kant's text is complex, yet worth considering. Kant's Table of Contents is presented in outline format by Pluhar's translation (1996, *viii–xvi*). Kant's section and §§ titles within the 'Deduction' are outlined below in the Analytical Contents (§6). Consider here these titles and taxonomy. The first division of Kant's 'Transcendental Logic' is the 'Transcendental Analytic' (in contrast to the second division, 'Transcendental Dialectic'). The first book of Kant's 'Transcenden-

tal Analytic' is the 'Analytic of Concepts' (in contrast to the second book, the 'Analytic of Principles'). The first chapter of Kant's 'Analytic of Concepts' is Kant's 'Clue to discovering all pure concepts of the understanding'. Here Kant examines the Table of judgmental forms, and suggests how that Table can indicate our most basic conceptual categories. The *second* chapter of Kant's 'Analytic of Concepts' contains the Deduction; this second chapter is titled 'Of the deduction of the pure concepts of the understanding'. This chapter contains two main 'sections', each of which is subdivided into numbered §§. The first main section is titled, 'Of the principles of a transcendental deduction as such'; it contains §§13–14. Kant's second main section is titled, 'Transcendental deduction of the pure concepts of the understanding'; it contains §§15–27. The penultimate §26 is titled, 'Transcendental deduction of the universally possible experiential use of the pure concepts of the understanding'. My point in reviewing this taxonomy of Kant's text is to suggest that Kant's key task in these two main sections of his chapter, specifically §§13–25 and §27, is to carefully circumscribe and characterise the exact issues and aims of his Deduction of the categories (§26). Much of my aim in the following elucidations is to indicate that this is exactly how Kant proceeds: thirteen §§ of careful stage-setting, one § of proof. §26 states Kant's Deduction of the categories. Kant has a very specific, unusual point to make about human apperception; consequently, he must make clear why this point matters, and why it holds true of us. This requires Kant's extensive stage setting (*cf.* below, §5).

2.4 One challenge of reading Kant's *KdrV* is that he examines issues both of cognitive process and of cognitive validity. These two kinds of issues he contrasts by distinguishing between his 'subjective' and 'objective' deductions (*Axvii*, *cf.* B393). The former concerns *how* we can sense, perceive, discriminate or judge any particulars at all; the latter concerns the *a priori*, formal conditions under which alone we can make any cognitive judgment about any sensed particular(s) *validly*, by achieving sufficiently accurate and justified reference to any particular(s) *and* ascription of feature(s) to that (or to those) particular(s). By carefully considering basic issues about sensory binding and information extraction, together with our most basic formal aspects of judging, to address issues about how it is at all possible for any cognisant human being to integrate sensory experience over time and through space so as to be able to judge anything it experiences, Kant constructs a very sophisticated *functionalist* cognitive architecture (*KCE* §§30, 43). By identifying these features of cognitive process, Kant identifies much more specifically *which* issues regarding cognitive *validity* require solution, and what philosophical resources may be brought to bear in

resolving these issues of validity (*KCE*, Chs. 4–8). Issues of process and issues of validity run throughout Kant’s Deduction; bearing their distinction clearly in mind is required to recognise that *Kant* distinguishes them, indeed, repeatedly and explicitly.

2.5 Kant’s subtle and successful discernment is better appreciated by using two diagnostic clues from Ryle. One is to beware of ‘para-mechanical hypotheses’ about the mind. Ryle (1949, 19, 23, 64, 68, *etc.*) criticised Cartesian para-mechanical hypotheses, but para-mechanical hypotheses run rampant in philosophical psychology, also amongst empiricists, materialists, physicalists and indeed most any philosophical account of *how* the mind (supposedly) works. One example from Kant’s Deduction is his lengthy aside about the apparent paradox of self-affection (B152–6). It overtly concerns process rather than validity; it is a para-mechanical hypothesis because the paradox arises from attempting to model sensory self-awareness on our sensory awareness of things other than ourselves, made yet more complicated (and para-mechanical) by Kant’s distinction between phenomena and noumena. Accordingly, I have elided it from the present edition, translation and commentary of Kant’s Deduction.

2.6 Ryle’s (1932 [2009, 41–62]) second clue is to beware of systematically misleading expressions. Four examples pertaining to Kant’s Deduction are ‘representation’, ‘cognition’, ‘determine’ and ‘*sinnliche Anschauung*’. Kant uses the term ‘*Vorstellung*’ (representation) as a genus for all sorts of factors pertaining to our cognisance, from individual sensations up to the most idealised, comprehensive concepts of reason. Always bear in mind Kant’s taxonomy of representations (A320/B376–7). Within this taxonomy, Kant typically uses the term ‘cognition’ (in the distributive singular) to designate a state of a subject, a ‘perception’, which connects to some other object, in contrast to a sensation, a ‘perception’ which only connects (or pertains) to a condition of the cognisant subject. Possible reference to objects other than oneself is fundamental to *KdV*. Recall, too, that Kant (like Leibniz) distinguishes between perception and apperception; unlike Hume’s impressions and unlike sense data, ‘perceptions’ are not automatically objects (or aspects) of self-conscious awareness (apperception).

2.7 I render ‘*sinnliche Anschauung*’ as ‘sensory intuition’. ‘Sensible’ is not incorrect, but too easily suggests sensed qualities of which one is explicitly aware, as in sense data or Humean impressions. ‘Intuition’ in Kant’s taxonomy indicates directedness to some particular(s) other than oneself: *sensory* intuition concerns direction and location, which are neither sensed nor sensory *qualities*; most literally, ‘*anschauen*’ is

looking *at* something. Kant’s views on human sensibility are complex and sophisticated; assimilating his approach to either Cartesianism or empiricism causes nothing but confusion. (See further §5 below; *cf.* Buroker 1981, George 1981, Falkenstein 1995.)

2.8 In English, many of the aspects of cognisance Kant designates by *Vorstellung* or the verb, *vorstellen*, in connection with sensory perception, would be better thought of as sensory *presentation(s)*. Kant is a direct Critical realist about sensory perception; he rejects indirect, representationalist theories of perception. This holds regardless of his transcendental idealism, within his ‘empirical realism’; or regardless of either qualification, if his idealism be set aside. (See further below, §5.)

2.9 In English as in German, ‘determine’ (*bestimmen*) can mean: cause to be as it is; yet it can also mean: specify, as in the instruction, ‘Phelps, please determine what became of the Higgins dossier!’ In this sense ‘determine’ means to find out or specify what has happened. In connection with concepts, to ‘specify’ a concept is to make it more precise, by providing a more exact, hence more restricted meaning or intension (with an ‘s’). Kant frequently uses *bestimmen* and its cognates in this sense.

2.10 A fifth systematically misleading expression is ‘analytic truth’, a direct descendant of Hume’s ‘relations of ideas’. Kant repeatedly stresses that all which can be known by conceptual *analysis*, strictly speaking, is whether any specific sub-concept is or is not included within some designated concept. Hence ‘analytic truth’ pertains only to conceptual content or intension (with an ‘s’), in contrast both to intentions (agents’ aims) and to extentions (actual instances of any concept or term). *Truth*, properly speaking, concerns the *relation* between a judgment or claim, formulated using some classificatory concepts, and any particular(s) judged or claimed to instantiate the relevant predicate concepts (in affirmative judgments). Hence truth, properly speaking, is never merely analytical; it is always synthetic, because truth involves both reference and attribution *to* indicated particular(s); these cannot be contained merely within any concept, they should never be mistaken for mere conceptual content or intension. The convenient tag, ‘analytic truth’ obscures a host of distinct, important conceptual, referential, ascriptive and judgmental issues. Even if, *e.g.*, anything coloured must be extended (*cf.* Quine 1961, 32ff), this is a complex hypothetical proposition, which (*qua* proposition or judgment) may have *no* relevant instances and so may express *no truth*, even if it may express a significant relation between the concepts ‘coloured’ and ‘extended’, and hence a significant (though entirely counter-factual, inferential) relation between any *possible* instances of ‘coloured’ and ‘extended’ particulars. The apparent clarity of convenient philosophical

short-hand may obfuscate! Quine is correct that problems lurk in empiricist notions of ‘analyticity’, yet his extensionalist semantics fails to identify and rectify them (Westphal 2015, Parrini 2018).

2.11 The key points of Kant’s Deduction concern cognitive semantics; they hold independently of Kant’s transcendental idealism, within the domain he calls his ‘empirical realism’. Kant’s Deduction addresses necessary conceptual conditions required for us at all to *think* so as to identify any particular(s) whatsoever, so as to be able competently to ascribe actual features to it (or to them). Kant expressly contrasts accurate attribution of what some particular IS, to however it may merely appear to some one of us. The contrast is correct, yet even saying of some particular that *it* appears to be such-and-so requires identifying *that* manifest particular, at least putatively. Even this minimal identification involves individuation and characterisation (however approximate or provisional). These proto-cognitive achievements require using the categories in order, as Kant stresses, to *think that* such-and-so appears to oneself – to any apperceptive human being, who can use the first person pronoun ‘I’ to express any thought, belief, judgment or claim whatsoever.

2.12 Central to Kant’s Deduction are the distinct, distinctive roles of sensory intuition and intellect within human experience: Sensory intuition can only present particulars to us; thinking can only judge those particulars presented by sensory intuition (B75–6, 304–5; cf. §14, B125, ll. 195–205, B126, ll. 216–33). In the Deduction (and elsewhere) Kant expressly distinguishes between mere thought and any, even candidate knowing by stressing issues of *reference*. Thinking a thought requires no more than thinking a logically consistent, grammatically complete proposition (in Kant’s view, as the content of a judgment one can affirm, deny or reject altogether). Knowing something requires, in addition to thought, indicating demonstratively (deictically) within space and time some particular(s) about which one judges by ascribing characteristics to *it* (or to *them*). In this regard, Kant agrees with Evans (1975), that predication as ascription of features *to* some specified, localised particular(s) is constitutive of empirical knowledge. Their view rejects what are known as ‘descriptions theories’ of reference, that propositions or sentences refer to whatever is described by their fully explicated meanings or intension. Such views cannot be correct, because in *any* case, whether there be no such particulars, many such, or only one such particular (for unique, singular reference) depends *also*, entirely independently, upon what in the world there is. Quine’s favourite example, ‘the shortest spy’, may fail of unique reference if instead the shortest spies are dwarf triplets of exactly the same stature and profession, or if by some stroke of great fortune, their

entire profession disappears. Kant makes this deictic point against Leibniz with two raindrops (B328). Furthermore, for unique reference to serve *knowledge* requires locating the particular(s) purportedly known; this requires demonstrative reference, directly or indirectly; mere truth-values do not suffice for cognition. That’s why Kant’s and Evans’ referential, demonstrative point is deictic.

2.13 Kant’s Deduction does imply there are and must be constraints upon objects and upon our deictic reference to discriminated particulars, such that we can think *of* them and *can* know them, but these constraints upon objects are examined in the second Book of the ‘Transcendental Analytic’, the ‘Analytic of Principles’. In the Deduction Kant focuses on the key intellectual conditions required for us at all to *think* any such specific, determinate thought, which we could think to refer to any particulars. (Much commentary and criticism neglects this basic point and so mistakes the aim and scope of Kant’s Deduction.)

2.14 Kant explicitly and repeatedly parallels the Deduction of the categories to what he here calls the transcendental Deduction of the *a priori* concepts of ‘space’ and of ‘time’ (cf. B118–9, 159, my comments below on ll. 58–75, and §4). These two *a priori* concepts must pertain to any particulars of which we can be aware, because we can only respond to spatio-temporal sensory stimulations, and only by such sensory receptivity can any particulars be presented to us, so as to afford any thought about any particular(s) at all. (This states Kant’s constraint on sensory receptivity very minimally, to suggest how Kant’s transcendental idealist account of space and time = nothing but human forms of sensory receptivity (B37–8, 59–60) may be set aside. For present purposes, this suggestion suffices; I do not pretend to justify it here.)

Kant’s parallel between these two Deductions underscores how Kant’s point in the Deduction of the categories concerns the possible connection of any human *thought* to objects, and so of any self-conscious human awareness to objects. Kant’s Deduction does not concern *objects*, except to specify that any objects of which we can be self-consciously aware must be spatio-temporal and must afford discrimination and identification by using our most basic categories, because these *a priori* concepts are constitutive of *any* humanly possible thought (which *can* pertain to particulars). The specification of objects, however, is left wide open in the Deduction, by design; it is Kant’s topic in the Analytic of Principles. Kant certainly is aware that his Deduction of the categories entails constraints upon the character of spatio-temporal particulars which we *can* perceive and identify, but those constraints are not Kant’s topic in the Deduction itself (cf. below, §§4, 5).

2.15 In this regard it is helpful to consider two different senses of the ‘constitution’ of objects of experience. One sense of ‘constitution of objects’ involves our *generation* of those objects, or at least of their key features. A distinct sense of ‘constitution of objects’ concerns necessary conditions (typically: *a priori* and formal, especially conceptual or judgmental conditions) which must be satisfied *if* we are to be able to be aware of any object *as* an object, or *as* the object it is. This second sense of ‘constitution of objects’ concerns how we can recognise or identify objects; it concerns issues of validity and need not appeal to any form of idealism; I shall call it the ‘presuppositional’ sense. The first, generative sense of ‘constitution of objects’ involves an account of (purported) cognitive *process*. Whether or how such process can also address issues of validity is not obvious; such a demonstration is a task for advocates of such views. (The divide marked by these two senses of ‘constitution of objects’ divided Husserl and Roman Ingarden; *cf.* Ingarden (1968, 1975).) I mention this contrast here because Kant’s transcendental idealism appears to involve or invoke the generative sense, whereas the focus of Kant’s Deduction on issues of validity – expressly the aim of his ‘objective deduction’ – appears to invoke or require (only) the presuppositional sense of ‘constitution of objects’ *as* objects of our self-conscious (apperceptive) awareness.

The grand dichotomy driving Kant’s transcendental idealism and his opposition to empiricism is stated at the start of §14 in these terms:

There are only two possible cases under which synthetic representations and their objects can come together, connect to each other necessarily and as it were meet one another: either if the object makes the representation, or this [latter] alone makes the object possible. (*KdrV* §14, B124–5, *cf.* Bxiii)

Kant’s formulation concerns production or generation; it states a para-mechanical hypothesis concerning process. How such issues of process can address issues of validity is not indicated here. There is no question that Kant thought in terms of transcendental idealism as the only tenable metaphysical position. The astonishing feature of his *KdrV* is that, and how, under the cover of this macro-level metaphysical contrast Kant developed in minute, accurate and sufficient detail an account of the validity of possible human experience and our cognitive judgments which holds entirely within the domain he designates as ‘empirical realism’, and yet his account of the necessary conditions for the possible validity of apperceptive human experience and cognitive judgment ultimately shows that the above dichotomy is specious; they are *not* the only options! Instead, Kant’s revolutionary examination, anal-

ysis and justification of the necessary formal and material conditions of possible human experience and cognitive judgment identifies and justifies robust *externalist* aspects of semantic content (intension), mental content and cognitive justification, all of which stand entirely independently of transcendental idealism. Indeed, the reasons why they hold show that, and how, his key arguments for transcendental idealism are invalid (and leave no obvious replacements in view). These strong claims *contra* transcendental idealism are detailed and defended in *KTPR*. Here I only aim to elucidate how Kant’s Transcendental Deduction of the Pure Categories of the Understanding holds, and can hold entirely independently of transcendental idealism. In exactly this regard, the ‘presuppositional’ sense of object constitution suffices for Kant’s B Deduction, although his transcendental idealism purports to defend a very subtle version of the ‘generative’ sense. Kant’s achievement is indeed extraordinary; we do both him and ourselves a grave philosophical disservice if we remain captive to the above dichotomy, or otherwise miss the details of his scrutiny and justification of conditions of cognitively valid judgment due to preoccupation with ‘big picture’ contrasts amongst apparent ontological alternatives.

2.16 My cautions above about appeal to transcendental idealism in connection with Kant’s Deduction aims to avoid short-circuiting Kant’s account of the *valid* use of the categories by premature appeal to issues of (putative, cognitive) process. Conversely, identifying exactly why and how transcendental idealism is required by Kant’s Deduction can be ascertained only by scrutinising the prospect (presented here) that it may not be required at all.

In my elucidations (§3) I indicate Kant’s key concern with intellectual = judgmental synthesis of concepts by which we identify sensed particulars and their features. This judgmental synthesis holds regardless of issues about sensory presentation of particulars; expressly, such judgmental ‘conjoining’ is an intellectual achievement. This strongly suggests, indeed it may entail, that the non-idealist, non-process gloss on ‘constitution’ of objects *as* objects of our possible self-conscious awareness – the second, presuppositional sense – suffices within and for Kant’s Deduction of the categories.

3 TEXT, TRANSLATION & ELUCIDATIONS

This section presents Kant's text with my elucidations on facing pages. Kant's second edition Deduction is printed with some omissions in the left column (*verso*), and newly translated in the right column (*recto*). My elucidations and notes are on the facing page (*recto*). Omitted are most passages overtly concerning Kant's transcendental idealism which do *not* concern issues of validity, and those concerning self-affection, *i.e.*, how we can be sensibly aware of ourselves within inner sense. Most of Kant's footnotes are omitted; some few are placed within the text. All ellipses are marked; longer elisions by '[...]' at the right margin. Line numbers (outside the far left margin) are cited in comments on the facing page as 'l.' or 'll.' (plural). Line numbers indicate Kant's German text; I have kept the English translation as closely sequenced to Kant's original as possible, whilst allowing proper paragraph format. Lines are numbered consecutively throughout to simplify references. Kant's first edition ('A') is cited for passages occurring in that edition alone; otherwise only the second ('B') edition is cited, except when identifying a passage in both editions is especially important..

The German text is Kant's original (1787), unmodernised. Kant's page breaks are indicated to the nearest whole word by B pagination in square brackets, set in petit font; *e.g.*: [B118]. Kant's own spelling is less a problem for foreigners, who learning abroad are taught beautiful 18th-century *Hochdeutsch*. Kant contributed greatly to establishing the German philosophical vocabulary. As this involved developing German counterparts to Latin terminology, Kant's German spellings often retain more Latin than soon became standard *Hochdeutsch*, yet these Latinate features of Kant's spelling are closer to English. I have checked Kant's text, and my edition of Kant's text, against two very reliable modern editions, those of Weischädel and of Timmermann. Modern printing better indicates Kant's Sperrdruck (for emphasis), but Modern German omits some of Kant's subjunctive moods. In the Deduction, these are only stylistic niceties, yet Kant had absolute command of German and wrote with great care and clarity, and often with remarkable expressive power. Yes, he struggled with expressing fundamentally revolutionary new ideas, but more often readers confront problems comprehending Kant's often brilliant concision. (Some examples are noted in §3.) All merely philological or typographical details are omitted. Kant's own editions of *KdrV* are now readily available on the web, for all who wish to scrutinise them.

I welcome sincere attempts to assess my translation, elucidations or editorial omissions, by which critics may also assess their preferred alternatives. Kant's Deduction may deserve or require more ambitious reconstruction than that presented here. I respectfully submit that any alternative can benefit by scrutinising both it and the present considerations, which I believe suffice, yet are neither complete nor final. The elided passages certainly are of interest, but as further comments by Kant on various related topics, not as central components of, nor guides to, the Deduction itself. I respectfully submit that, even with its tactical omissions, the attention devoted here to Kant's B Deduction is more thorough and careful than what has become accepted in much contemporary scholarship.

Abbreviations

<i>KdrV</i>	Kant, <i>Critik der reinen Vernunft</i> , 1781 ('A'), 1787 ('B'); (Riga 1787).
<i>Prolog.</i>	Kant, <i>Prolegomena to Any Future Metaphysics</i> (Riga 1783).
<i>Anth.</i>	Kant, <i>Anthropology from a Pragmatic Point of View</i> (Königsberg, 2 nd ed. 1800).
<i>Prin.</i>	Descartes, <i>The Principles of Philosophy</i> (Amsterdam 1644).
<i>En.1</i>	Hume, <i>Enquiry Concerning Human Understanding</i> (London 1748, 1756).
<i>KTPR</i>	Westphal, <i>Kant's Transcendental Proof of Realism</i> (Cambridge 2004).
<i>KCE</i>	Westphal, <i>Kant's Critical Epistemology</i> (Routledge 2020).

Zweites Hauptstück. Von der Deduction der reinen Verstandesbegriffe. [B116]

Erster Abschnitt.

§ 13. Von den Principien einer transcendenten Deduction überhaupt.

Die Rechtslehrer, wenn sie von Befugnißen und Anmaßungen reden, unterscheiden in einem Rechtshandel die Frage über das, was Rechtens ist (*quid iuris*), von der, die die Thatsache angeht (*quid facti*), und indem sie von beiden Beweisen fordern, so nennen sie den erstern, der die Befugniß oder auch den Rechtsanspruch darthun soll, die Deduction. Wir bedienen uns einer Menge empirischer Begriffe ohne jemandes Widerrede und halten uns auch ohne Deduction berechtigt, ihnen einen Sinn und eingebildete Bedeutung zuzueignen, weil wir jederzeit die Erfahrung bey der Hand [B117] haben, ihre objective Realität zu beweisen. Es giebt indessen auch usurpirte Begriffe, wie etwa Glück, Schicksal, die zwar mit fast allgemeiner Nachsicht herumlaufen, aber doch bisweilen durch die Frage: *quid iuris*, in Anspruch genommen werden; da man alsdann wegen der Deduction derselben in nicht geringe Verlegenheit geräth, indem man keinen deutlichen Rechtsgrund weder aus der Erfahrung, noch der Vernunft anführen kann, dadurch die Befugniß ihres Gebrauchs deutlich würde.

Chapter Two. Of the Deduction of the Pure Concepts of the Understanding.

First Section.

§ 13. Of the Principles of a Transcendental Deduction as such.

Speaking of entitlements and claims in cases at law, jurists distinguish the question concerning justice (*quid iuris*) from that which concerns facts (*quid facti*), and since they demand proof of both, they call the first, which shall provide the title or the claim of justice, the *deduction*. We use a host of empirical concepts without anyone taking exception and we take ourselves even without a deduction to be entitled to ascribe to these concepts a sense and a presumed significance, because we always have experience at hand to prove their objective reality. There are also surreptitious concepts, such as *luck* or *fate*, which circulate with nearly unanimous accord, though occasionally are protested by posing the question: *quid iuris*; and then by their deduction one falls into a not insignificant quandary, since one can provide no clear grounds of justification, whether from experience, or by reason, by which the title to use these concepts would be made clear and evident.

3.1 §13: Of the Principles of a Transcendental Deduction as such.

B116–7 (ll. 6–33): Kant’s emphatic contrast between questions of fact and questions of normative validity marks the same distinction between, *e.g.*, issues of psychological process and those of logical validity stressed by Frege (1884); likely Frege adopted this contrast from Kant’s *KdrV*. Kant’s *KdrV* does investigate issues of cognitive process and origins of various factors involved in human experience and cognition, for three reasons: (1) to identify as well as possible precisely which issues of cognitive validity, concerning truth, accuracy, justification or other such normative modalities must be addressed, (2) to suggest some considerations in view of which they may be addressed and (3) to support his claims that the account he develops holds true of *us*. Kant marks their distinction by contrasting his ‘subjective deduction’, which concerns how experience or cognition is (possibly) generated, to his ‘objective deduction’, which aims to demonstrate under what conditions cognitive judgments are cognitively justified or justifiable (Axvii, cf. B393). This same contrast recurs in Kant’s distinction between a transcendental deduction of *a priori* concepts and their empirical deduction, which concerns their acquisition (B117, ll. 47–57).

B117 (l. 21; cf. B148, ll. 839–51): The designation ‘objective reality’ is common throughout the Mediaeval and Modern periods, and retains use in optics: In contrast to the eyepiece, the lens at the other end which aims at an object is called the ‘objective’ lens (of a binoculars, camera, microscope or telescope). The sense of ‘objective reality’ = directed towards an object. Despite all naturalistic attempts to reduce, explain or explain away ‘objective reality’ or representational content in terms of nothing but the ‘formal reality’ of whatever physical objects or events (*i.e.*, their reality as actual, existing particulars), none have (remotely) succeeded (cf. Westphal 2017). About *this* duality Descartes was right (cf. Moran 2014).

35 Unter den mancherley Begriffen aber,
 die das sehr vermischte Gewebe der
 menschlichen Erkenntniß ausmachen,
 giebt es einige, die auch zum reinen Ge-
 brauch a priori (völlig unabhängig von
 aller Erfahrung) bestimmt sind, und die-
 40 ser ihre Befugniß bedarf jederzeit einer
 Deduction: weil zu der Rechtmäßigkeit
 eines solchen Gebrauchs Beweise aus
 der Erfahrung nicht hinreichend sind,
 man aber doch wissen muß, wie diese
 45 Begriffe sich auf Objecte beziehen kön-
 nen, die sie doch aus keiner Erfahrung
 hernehmen. Ich nenne daher die Erklä-
 rung der Art, wie sich Begriffe a priori
 auf Gegenstände beziehen können, die
 50 transscendentale Deduction der-
 selben und unterscheide sie von der
 empirischen Deduction, welche die
 Art anzeigt, wie ein Begriff durch Erfah-
 rung und Reflexion über dieselbe erwor-
 55 ben worden, und daher nicht die Recht-
 mäßigkeit, sondern das Factum betrifft,
 wodurch der Besitz entsprungen. [B118]

However, amongst the various con-
 cepts which constitute the very mixed
 fabric of human cognition, there are
 some destined to a pure use *a priori*
 (entirely independent from all experi-
 ence), and the entitlement to their use
 always requires a deduction: because
 proofs from experience do not suf-
 fice for the legitimacy of their usage,
 yet one must of course know how
 these concepts can connect to ob-
 jects, although these concepts are not
 derived from any experience. I call
 the explication of how *a priori* con-
 cepts can connect to objects their
transcendental deduction, and distinguish
 this from an empirical deduction,
 which indicates how a concept can be
 acquired from experience and reflec-
 tion upon it, and so addresses not the
 legitimacy but rather the fact by
 which the possession arose.

B117 (*l.* 36): Within his taxonomy of species of representation (A320/B376–7), hence within
 the context of his ‘Deduction’, Kant typically (though not exclusively) uses *Erkenntniß* (cog-
 nition), whether singular or plural, to designate subjective states, ‘perceptions’, which con-
 nect to some object distinct to the Subject whose perception it is. (Recall that by ‘percep-
 tion’ Kant does not automatically mean ‘apperception’!) As George (1981) indicates, at the
 time, the term *Erkenntniß* was used (*inter alia*) to denote indexical, demonstrative, ostensive
 or deictic reference to (putative) particulars. Which factor(s) or what cognitive achieve-
 ment(s) Kant may designate by these terms must be discerned in context, which usually
 makes his point quite clear. (Always keep Kant’s taxonomy (A320/B376–7) in mind.)

B117 (*ll.* 47–8): On ‘*Erklärung*’ and ‘explication’, see B755–8. ‘Explanation’ connotes *quid facti*;
 explication admits of addressing (normative, justificatory) *quid iuris*. Kant’s reasons for re-
 jecting ‘definition’, demoting the status of ‘analytic truth’ and instead advocating ‘explica-
 tion’ in philosophical inquiry are decisive: All we can know by conceptual analysis is the
 intension or classificatory content of a concept, none of which can be justified as necessary
 truth merely by conceptual analysis. Explication roots Kant’s justificatory fallibilism deeply
 within the methodological and substantive core of *KdrV*.

B117 (*ll.* 47–51): Kant’s central issue is whether or how pure *a priori* concepts can ‘connect’
 (*beziehen*) or be referred to objects. Such (possible) reference to objects *is* the ‘objective valid-
 ity’ of these concept; to show that *a priori* concepts have such objective validity by demon-
 strating that they can be referred in determinate, cognitively legitimate (accurate, true, justifi-
 able) ways is to ‘realise’ these concepts. Kant adopted this sense of the verb ‘to realise’ from
 Tetens (1775, 1777), who held that demonstrating that a concept is cognitively legitimate re-
 quires indicating, picking out, deictically demonstrating at least one relevant instance of that
 concept. Kant realised that this is precisely what must be shown of our pure *a priori* con-
 cepts, the categories (B117, *ll.* 34–47).

B117 (*ll.* 45, 49): Where English has two terms, Kant uses three: ‘*Object*’, ‘*Gegenstand*’ and
 ‘*Ding*’ (*ll.* 765, 785, 790, 793, 808, 884); English provides ‘object’ and ‘thing’. Kant’s terminol-
 ogy is flexible and often vexing to readers, because (*per* his use of conceptual explication,
 noted above) he often develops or glosses his terms sufficiently for a particular context of
 use. He is not inconsistent, and his flexibility serves to avoid entrapment in rigidified termi-
 nology, but it does require great care by his readers. In later parts of the Deduction, he con-
 trasts ‘*Object*’ to ‘*Gegenstand*’, plainly using the former to mark a *concept* of an object as such,
 whereas the latter can be an actual particular presented to us by sensory intake. By ‘given’
 Kant usually means ‘presented’ or ‘available in’; at no point does he mistake any ‘given’ for
 aconceptual knowledge of any particulars.

Wir haben jetzt schon zweierley Begriffe von ganz verschiedener Art, die doch darin mit einander übereinkommen, daß sie beiderseits völlig *a priori* sich auf Gegenstände beziehen, nämlich die Begriffe des Raumes und der Zeit als Formen der Sinnlichkeit und die Kategorien als Begriffe des Verstandes. Von ihnen eine empirische Deduction versuchen wollen, würde ganz vergebliche Arbeit seyn, weil eben darin das Unterscheidende ihrer Natur liegt, daß sie sich auf ihre Gegenstände beziehen, ohne etwas zu deren Vorstellung aus der Erfahrung entlehnt zu haben. Wenn also eine Deduction derselben nöthig ist, so wird sie jederzeit transscendental seyn müssen. [... B119]

Ob nun aber gleich die einzige Art einer möglichen Deduction der reinen Erkenntniß *a priori*, nämlich die auf dem transscendentalen Wege, eingeräumt wird, so erhellet dadurch doch eben nicht, daß sie so unumgänglich nothwendig sey. Wir haben oben die Begriffe des Raumes und der Zeit vermittelt einer transscendentalen Deduction zu ihren Quellen verfolgt und ihre objective [B120] Gültigkeit *a priori* erklärt und bestimmt. [... B122]

Die Kategorien des Verstandes dagegen stellen uns gar nicht die Bedingungen vor, unter denen Gegenstände in der Anschauung gegeben werden, mithin können uns allerdings Gegenstände erscheinen, ohne daß sie sich nothwendig

We have already found two quite distinctive kinds of concepts, which nevertheless agree insofar as both connect fully *a priori* to objects, namely, the concepts of space and of time as forms of sensibility and the categories as concepts of the understanding. To want to attempt an empirical deduction of these would be an utterly futile task, because what is distinctive of their nature lies precisely in this, that they connect themselves to objects without borrowing anything from experience. If, then, a deduction of these concepts is necessary, it must be altogether transcendental. [...]

Now if the sole possible kind of deduction of pure cognitions *a priori*, namely a transcendental kind, be granted, that does not yet illuminate whether it be so ineluctably required. Above we have, with little difficulty, pursued the concepts of space and of time through a transcendental deduction to their sources and have explicated and specified *a priori* their validity. [...]

The categories of understanding, on the other hand, do not provide us the conditions under which objects are given within [sensory] intuition, hence objects could well appear to us, though without any necessity that

B118 (ll. 58–86): Kant appeals to results of his Transcendental Aesthetic (hereafter: ‘Tr. Aesth.’), that we have two *a priori* concepts, one of ‘space’, one of ‘time’, which must pertain or ‘connect’ (*sich beziehen*) to any objects of which we can be aware, because we can only be aware of objects presented to us in or through sensory intuition, which is spatio-temporal (in at least the sense that we are only sensitive or responsive to spatio-temporal sensory stimuli; this minimal sense is further undergirded by his transcendental idealism, but this latter is set aside in these elucidations). This result from the Tr. Aesth. is here (for the first time) described as their transcendental deduction. Kant claims the parallel point regarding the categories, first identified by following out the implications of his Table of twelve formal aspects of judging for our most basic classifications of whatever we can possibly judge, *i.e.*, the categories as our most basic, general classifications. To justify *a priori* his key claim that the *a priori* categories do pertain or connect to any particulars we can possibly experience or judge is the task of this chapter, the Transcendental Deduction of the Pure Concepts of the Understanding. In contrast, their connection to our forms of sensibility, and so to particulars presented to us in sensory perception, makes the Deduction of ‘space’ and of ‘time’ straightforward (*cf.* ll. 120–5).

B120 (l. 86): Kant often uses the term *bestimmen* and its cognates in the sense of specify, rather than in the sense of ‘to make to be as it is’. Both senses are also common in English, though contemporary Anglophones too often neglect the former sense, illustrated in the executive request, ‘Phelps, determine what became of the Higgins dossier forthwith!’. Thinking of Kant’s aims as ‘explanatory’ rather than ‘explicative’ (*per* above, B117, ll. 47–52) re-enforces misleading causal connotations of ‘*bestimmen*’ as ‘make to be’; whereas Kant’s concern is ‘specify’.

B122–3 (ll. 88–145): Kant highlights how the Deduction of the categories differs from the Deduction of the *a priori* concepts of ‘space’ and of ‘time’, because any objects we can (so to speak) encounter, or which can affect our sensibility, or which can at all be presented to our senses, must be spatio-temporal, so that the concepts ‘space’ and ‘time’ must pertain to them. (Kant quite deliberately here leaves entirely open how, in what specific ways, those concepts may pertain to sensed particulars; see B137–8, ll. 527–38.) However, spatio-temporal objects or appearances or phenomena, though spatio-temporal and though affecting our sensibility, might be so confused and confusing (B123, ll. 130–45) that they would not at all afford or exhibit the kinds of features or regularities required for any humanly possible thought, which requires judgmental synthesis of sensory representations so that we can identify (classify) any instance of any category. Such a condition may be called ‘transcendental chaos’ (KIPR §§15–29.) I intercalate ‘[sensory]’ to qualify ‘intuition’ (l. 91) to stress that Kant is not (at all) considering anything intellectual, but intuition as sensory presentation, which he contrasts both

auf Functionen des Verstandes beziehen
 95 müssen, und dieser also die Bedingungen
 derselben a priori enthielte. Daher zeigt
 sich hier eine Schwierigkeit, die wir im
 Felde der Sinnlichkeit nicht antrafen, wie
 nemlich subjective Bedingungen
 100 des Denkens sollten objective
 Gültigkeit haben, d.i. Bedingungen
 der Möglichkeit aller Erkenntniß der Ge-
 genstände abgeben: denn ohne Functionen
 des Verstandes können allerdings
 105 Erscheinungen in der Anschauung gegeben
 werden. Ich nehme z.B. den Begriff
 der Ursache, welcher eine besondere Art
 der Synthesis bedeutet, da auf etwas *A*
 was ganz Verschiedenes *B* nach einer
 110 Regel gesetzt wird. Es ist a priori nicht
 klar, warum Erscheinungen etwas dergleichen
 enthalten sollten (denn Erfahrungen kann man
 nicht zum Beweise anführen, weil die objective
 Gültigkeit dieses Begriffs a priori muß dargethan
 115 werden können); und es ist daher a priori
 zweifelhaft, ob ein solcher Begriff nicht
 etwa gar leer sei und überall unter den
 Erscheinungen keinen Gegenstand an-
 120 treffe. Denn daß Gegenstände der sinnlichen
 Anschauung den im Gemüth a priori liegenden
 [B123] formalen Bedingungen der Sinnlichkeit
 gemäß seyn müssen, ist daraus klar, weil sie
 sonst nicht Gegenstände für uns seyn würden;
 125 daß sie aber auch überdem den Bedingungen,
 deren der Verstand zur synthetischen Einheit
 des Denkens bedarf, gemäß seyn müssen,
 davon ist die Schlußfolge nicht

they must connect to functions of the
 understanding, which would thus
 contain their conditions *a priori*. Thus
 in this regard a difficulty arises which
 we did not confront in the domain of
 sensibility, namely: How *subjective conditions of thought*
 are to have *objective validity*, i.e. how can they furnish
 conditions of the very possibility of all
 knowledge of objects: since without
 functions of the understanding appearances
 can of course be given within intuition.
 I take, e.g., the concept of cause, which
 signifies a particular kind of synthesis,
 whereby upon some *A* some entirely distinct
B is posited according to a rule. It is not
 clear *a priori* why appearances should
 contain anything of the kind (for it is
 useless to appeal to experience for proof,
 because the objective validity of this
 concept can only be proven *a priori*);
 hence it is doubtful *a priori* whether such
 a concept might not be utterly empty and
 pertain to no object whatsoever within
 appearances. That objects of sensible
 intuition must accord with those formal
 conditions of sensibility which lie *a priori*
 within our mentality is clear for this
 reason, that otherwise they would not
 be objects for us; however, that they
 also must further accord with those
 conditions required by the understanding
 for synthetic unity of thinking; insight
 into this inference is not

to sensation(s), and to apperceptive experience or thought (cf. below, §5); hence neither is he considering anything like Humean impressions of sense, nor of sense data.

A further important point very strongly suggested by Kant's formulation of the key problem of the Deduction is that, whatever sub-personal cognitive functions must be structured by our basic formal aspects of judging and our categories, Kant has excellent reason to distinguish two different uses of the categories, one in guiding such sub-personal sensory syntheses, quite another one in structuring our humanly possible explicit forms of cognitive judgment about whatever particulars we happen to sense (see below, B134–5, ll. 456–68; B151, ll. 943–90). Though it cannot be proven by Kant's formulation alone, the further relevant evidence (I have argued elsewhere) supports Kant's formulation and its clear indication that he agrees, e.g., with Dretske (1969) about the distinction between simple, non-cognitive ('non-epistemic') seeing and any explicitly cognitive seeing *that* such-and-so is the case, or likewise with Travis (2004) about the silence of the senses (cf. A293/B350). This view does not (at all) invoke or entail any aconceptual 'knowledge by acquaintance' or mythical 'givenness', precisely because cognition requires and involves *judgment*, identifying and classifying some particular(s) *as* exhibiting such-and-so features – exactly in accord with Evans (1975). The textual and exegetical evidence must be carefully examined, because by design Kant pursues (functional) issues of cognitive processes in order to identify key epistemological issues of *proper* functioning and especially of possible genuine and justifiable cognitive reference to and classificatory identification of particulars. These are the two tasks of his 'subjective' and his 'objective' deductions (Axxvii, cf. B393).

B122 (ll. 106–10): Kant's illustrating the issue with the concept 'cause' cannot be merely contingent. The concept 'cause' is *a priori* and is modally defined in ways which cannot be specified in accord with concept empiricism nor verification empiricism; Kant discusses these points shortly (see below, re: 'dignity', l. 171). Kant's issue in the Deduction expressly concerns how the mere possession of *a priori* concepts (e.g., the categories) does not suffice to show that these concepts have any possible valid cognitive *use*. Demonstrating that they can have such use requires 'realising' them by showing how it is humanly possible to indicate accurately (if approximately) any, though at least one, relevant instance (*per* ll. 110–20). This is the deictic point about the cognitive (and so the epistemological) significance of indexical or demonstrative reference Kant learnt from Tetens. (This point is neglected by 'analytic transcendental arguments', which only focus upon concept possession; KTPR 28–9, KCE §14.)

B123 (ll. 125–45): Kant here makes the point already mentioned, that spatio-temporal objects or appearances or phenomena, though spatio-temporal and though affecting our sensibility, might be so confused and confusing that they would not at all afford or exhibit the kinds of features or regularities required for any humanly possible thought, which requires judgment-

130 so leicht einzusehen. Denn es könnten
wohl allenfalls Erscheinungen so be-
schaffen seyn, daß der Verstand sie den
Bedingungen seiner Einheit gar nicht ge-
mäß fände, und alles so in Verwirrung
135 läge, daß z.B. in der Reihenfolge der Er-
scheinungen sich nichts darböte, was eine
Regel der Synthesis an die Hand gäbe
und also dem Begriffe der Ursache und
Wirkung entspräche, so daß dieser Be-
140 griff also ganz leer, nichtig und ohne Be-
deutung wäre. Erscheinungen würden
nichts destoweniger unserer Anschauung
Gegenstände darbieten, denn die An-
schauung bedarf der Functionen des
145 Denkens auf keine Weise.

Gedächte man sich von der Mühsam-
keit dieser Untersuchungen dadurch los-
zuwickeln, daß man sagte: die Erfahrung
böte unablässig Beispiele einer solchen
150 Regelmäßigkeit der Erscheinungen dar,
die genugsam Anlaß geben, den Begriff
der Ursache davon abzusondern und da-
durch zugleich die objective Gültigkeit
eines solchen Begriffs zu bewähren, so
155 bemerkt man nicht, daß auf diese Weise
der Begriff der Ursache gar nicht ent-
springen kann, sondern daß er entweder
völlig *a priori* im Verstande müsse ge-
gründet seyn, oder als ein bloßes Hirnge-
160 spinnst gänzlich [B124] aufgegeben werden
müsse. Denn dieser Begriff erfordert
denn, daß etwas *A* von der Art sei,
daß ein anderes *B* daraus nothwendig
und nach einer schlechthin allge-
165 meinen Regel folge. Erscheinungen

so easy. For appearances could be
altogether so constituted, that the un-
derstanding would not find them at
all in accord with the conditions of
its unity, so that everything lay in
such confusion, so that, *e.g.*, in the
series of appearances nothing pre-
sented itself which would provide a
rule of synthesis and so would corre-
spond to the concept of cause and
effect, so that this concept would
thus be entirely empty, null and insigni-
ficant. Appearances would never-
theless present objects to our intu-
ition, since intuition does not at all
require the functions of thinking.

Did we think to extricate ourselves
from the difficulty of such inquiries
by saying, experience affords contin-
ual examples of such regularities
within appearances which furnish
abundant occasion for abstracting
from them the concept of cause and
thus also ratifying the objective valid-
ity of such a concept, one thus ne-
glects that in this way the concept of
cause cannot at all arise, but that it
must either be grounded fully *a priori*
in the understanding, or otherwise
must be utterly abandoned as a mere
chimera. For this concept absolutely
requires that something *A* be of such
a kind that something else *B* follows
from it, necessarily and according to
an altogether universal rule. Of course
appearances provide examples, which

tal synthesis of sensory representations so that we can identify (classify) any instance of any category. Such a condition of ‘transcendental chaos’ would block the very possibility of human thought and judgment, even the bare ‘*I think ...*’. Kant’s Deduction does imply constraints upon particulars which are humanly identifiable by sensory perception, yet those constraints are *not* the topic of the Deduction; they are examined in the Analytic of Principles. In the Deduction Kant focuses on the barest necessary conditions for any humanly possible thinking of any thought at all, including the bare self-referential ‘*I think ...*’.

B123–4 (*ll.* 146–85): Kant characterises why and how the empiricist (Humean) alternative of settling for customary associations or empirical generalities cannot address key issues about logically contingent yet strictly universal empirical propositions concerning natural kinds or (also) causal necessities, and concerning our fallible empirical knowledge of them. The first order of Kant’s business is to identify the key *a priori* concepts required even to formulate these issues and judgments, and then to demonstrate that we can use these concepts in sufficiently accurate and justified cognitive judgments. Readers accustomed to Hume’s empiricism find Kant’s presumption that there are such *a priori* concepts as the categories ‘unmotivated’. The best demonstration that Kant is right about the *a priori* status of these concepts is a strictly internal critique of Hume’s or also C.D. Broad’s concept empiricism; see Westphal (1998, §4; 2013), Turnbull (1959). On the concept ‘cause’ see B240–1 and Beck (1975, 120–9), whose elucidation shows how very much Kant can state and argue, accurately, incisively and so very concisely in one brief aside.

B123–4 (*ll.* 146–85): Kant highlights here (and repeatedly below) what are in effect Hume’s lessons about how empirical evidence as understood by empiricists provides no more than customary associations which cannot at all identify or justify the kinds of modality involved either in any causal production of an effect, or in any cognitive judgment about what is the case regarding any such causal modality. This latter modal issue is more explicit later (B141–2, *ll.* 612–21; B165–6, *ll.* 1190–1202). Part of Kant’s aim is to demonstrate that our key concepts and their use are modally structured and significant in ways which cannot be reduced to empiricist accounts of meaning or evidence (concept empiricism or meaning empiricism). One surprise is that this modal significance (intension) is required even for (apparently) simple affirmative judgments about what anything **IS**, in contrast to however it may seem to one or another of us.

B124 (*l.* 171): ‘Dignity’ indicates a status or standing. Kant pays concerted attention to the semantic content (intension) of key concepts, especially the categories, and the principles and particular judgments (claims) we formulate, consider and often affirm, and how these intensions are modally specified in ways which cannot be defined, identified or justified on a

geben gar wohl Fälle an die Hand, aus denen eine Regel möglich ist, nach der etwas gewöhnlicher maßen geschieht, aber niemals, daß der Erfolg notwendig sey: daher der Synthesis der Ursache und Wirkung auch eine Dignität anhängt, die man gar nicht empirisch ausdrücken kann, nämlich daß die Wirkung nicht bloß zu der Ursache hinzu komme, sondern durch dieselbe gesetzt sei und aus ihr erfolge. Die strenge Allgemeinheit der Regel ist auch gar keine Eigenschaft empirischer Regeln, die durch Induction keine andere als comparative
 180 Allgemeinheit, d.i. ausgebreitete Brauchbarkeit, bekommen können. Nun würde sich aber der Gebrauch der reinen Verstandesbegriffe gänzlich ändern, wenn man sie nur als empirische Producte be-
 185 handeln wollte.

§ 14. Uebergang zur transscendentalen Deduction der Categorien. [...B125]

Ist aber das zweite, weil Vorstellung an sich selbst (denn von deren Causalität vermittelt des Willens ist hier gar nicht die Rede) ihren Gegenstand dem Daseyn nach nicht hervorbringt, so ist doch die Vorstellung in Ansehung des Gegenstandes alsdann *a priori* bestimmend, wenn durch sie allein es möglich ist, etwas als einen Gegenstand zu erkennen. Es sind aber zwei Bedingungen, unter denen allein die Erkenntniß eines Gegenstandes möglich ist, erst-

can afford a rule, according to which something usually occurs, but never that the consequence *be necessary*. Hence to the synthesis of cause and effect pertains a dignity which one cannot at all express empirically, namely that the effect not merely comes after the cause, but is *posited by* it and issues *from* it. The strict universality of the rule, too, is not at all characteristic of empirical rules, which by induction can obtain only a comparative universality, *i.e.*, an extensive usefulness. Now the use of the pure categories would be entirely altered, if one wanted to treat them only as empirical products.

§ 14. Transition to the Transcendental Deduction of the Categories.

[...] In the second case, because representation in itself (since causality through the will is not here at issue) does not produce its object with *respect to its existence*, nevertheless the representation in regard to its object is *a priori* determining, if through it alone it is possible *to know something as object*. There are however two conditions under which alone the cognition of an object is possible, first *intuition*, by which, though only as ap-

strictly empiricist basis (Hume's theory of ideas + concept empiricism + verification empiricism; *En.1*, §§1–7), in order to pose, address and ultimately to resolve questions about how, how well and with what validity or justification (*quid iuris*) we can use such concepts, form such judgments and affirm (or reject) such claims, in view of the sharp semantic and modal contrasts between our (apparent) empiricist 'basis' and the content of these claims. In *KdrV* Kant argues that we must be able to use the categories with sufficient accuracy and justification *if* we are ever able even to think '*I think ...*'. One key reason justifying this very strong thesis, which is equally anti-empiricist and anti-rationalist (and anti-Cartesian) is developed in the Deduction. One direct corollary of Kant's Deduction is that we could not even collect the empiricists' preferred empirical evidence and form their preferred customary beliefs, unless we succeed, with sufficient if approximate accuracy and justifiedness, to identify at least some particulars in our surroundings, so as to distinguish them, and our perceiving them, *as* we perceive them, from ourselves *as* self-consciously perceiving those particulars. These commonsense discriminations and identifications of at least some perceptible particulars all require competent, accurate use of the categories (*cf.* B125, ll. 205–9; B126, ll. 215–43). Such self-conscious self-awareness is a cognitive achievement, not a mere assumption of an ego-centric predicament. (The question whether Kant's account of 'judgments of perception' (*Pröl.* §29), about how something merely appears to oneself, is consistent with *KdrV* is a pseudo-issue, because even to wonder whether the sun warms a stone requires recognising and identifying both the sun and the stone, and the warmth of each; these identifications require fulfilling the transcendental conditions of the possibility of apperceptive human experience examined only within *KdrV*.)

3.2 §14: Transition to the Transcendental Deduction of the Categories.

B125 (ll. 188–97): Kant acknowledges two unproblematic cases in which object and concept may correspond: if either one produces the other (see above, §2.15). Surprisingly, *neither* is relevant to Kant's Deduction, regardless of his transcendental idealism and how often it suggests we do create at least the structure of objects of empirical experience and knowledge. Kant's Deduction turns instead on identifying necessary *a priori* conditions of thought and judgment, and arguing that we must satisfy these conditions *if* we are to be at all aware of ourselves *as* being aware of any sensed (intuited) particular(s) (apperception), as his next question indicates (ll. 205–9, 215–32, 247–53). Kant's disuse of the first two models, by which either the object produces the representation or *vice versa*, is a considerable reason for stressing Kant's use of the second, presuppositional sense of 'constitution of objects' (above, §2.15), *i.e.*, examining the *a priori* conditions required to constitute objects *as* objects of human thought, perception or experience. Here Kant expressly contrasts the existence of objects and any knowledge we may have of them *as* objects (ll. 192–7, 202–4).

200 lich Anschauung, dadurch derselbe,
aber nur als Erscheinung, gegeben wird;
zweitens Begriff, dadurch ein Gegen-
stand gedacht wird, der dieser Anschau-
ung entspricht. [...]

205 Nun fragt es sich, ob nicht auch Be-
griffe *a priori* vorausgehen, als Bedingun-
gen, unter denen allein etwas, wenn
gleich nicht angeschauet, dennoch als
Gegenstand überhaupt gedacht wird;
210 denn alsdann ist alle empirische [B126]
Erkenntniß der Gegenstände solchen
Begriffen nothwendiger Weise gemäß,
weil ohne deren Voraussetzung nichts
als Object der Erfahrung möglich
215 ist. Nun enthält aber alle Erfahrung
außer der Anschauung der Sinne, wo-
durch etwas gegeben wird, noch einen
Begriff von einem Gegenstande, der in
der Anschauung gegeben wird oder er-
220 scheint: demnach werden Begriffe von
Gegenständen überhaupt als Bedingun-
gen *a priori* aller Erfahrungserkenntniß
zum Grunde liegen: folglich wird die
objective Gültigkeit der Categorien als
225 Begriffe *a priori* darauf beruhen, daß
durch sie allein Erfahrung (der Form des
Denkens nach) möglich sei. Denn als-
dann beziehen sie sich nothwendiger
Weise und *a priori* auf Gegenstände der
230 Erfahrung, weil nur vermittelt ihrer
überhaupt irgend ein Gegenstand der
Erfahrung gedacht werden kann.

Die transscendentale Deduction aller
Begriffe *a priori* hat also ein Principium,
235 worauf die ganze Nachforschung gerich-

pearance, it is given; second *concept*,
by which an object is thought which
corresponds to this intuition. [...]

Here arises the question, whether
any concepts *a priori* precede, as con-
ditions under which alone, if not now
intuited, something nevertheless is
thought as [an] object as such; since
in that case all empirical cognition of
objects necessarily accords with such
concepts, since without their presup-
position nothing is possible as [an]
object of experience. Now besides intui-
tion of the senses, by which some-
thing is given, all experience also con-
tains a *concept* of an object which is
given in intuition or [which] appears:
Accordingly concepts of objects as
such as conditions *a priori* of experi-
ential cognition underlie all such ex-
perience: consequently the objective
validity of the categories as *a priori*
concepts would be based on this: that
only by them would experience (ac-
cording to the form of thinking) be
possible. For in this case they neces-
sarily and *a priori* connect themselves
to objects of experience, because only
by their mediation can any object of
experience be at all thought.

The transcendental deduction of all
a priori concepts thus has a principle
by which the whole enquiry must be

B125 (*ll.* 197–204): Kant clearly and unambiguously, though briefly, recalls his key doctrine
of the two distinct, mutually integrated roles of sensory intuition and intellectual concep-
tualisation within human experience and knowledge (B75–6, 304–5), and at B126 (*ll.* 215–32).

B125 (*ll.* 206–10): Kant hints at the key to the transcendental deduction of the categories,
that their use is necessary in order for us at all to *think* of something we (apparently) intuit
through sensation to be some object or other, so as to be able to experience it. This point
he amplifies at B126 (*ll.* 215–43).

B125–6 (*ll.* 210–5, 220–7, 227–32): Kant formulates his key claim three times, that only by
assuming that objects of human experience conform to the categories is anything possibly
an object of our experience (*cf.* above, §2.15). Kant’s formulation is consistent with the
presuppositional sense of ‘constitution’ of objects, that the proper use of the categories be
necessary to constitute any particular *as* an object of our apperceptive experience. This read-
ing disregards Kant’s transcendental idealism, yet it may suffice for his Deduction. ‘Proper’
use is an ambitious claim, justifying which requires also the Analytic of Principles.

B126 (*ll.* 227–32): Kant states the key aim of the Deduction, to demonstrate that the *a priori*
categories are objectively valid because they alone render experience possible in regard to
the very form of thought; that only by using the categories can any object of experience be
at all *thought* (*l.* 232) as an object. This principle is Kant’s key to the entire Deduction (*ll.*
233–43). Sceptics and critical enquirers may already ask, why think that such thoughts must
be either accurate or justified or justifiable? These questions are crucial, but they are not
Kant’s topic in the Deduction! Although he does illustrate (§26) how and why proper use of
the categories is necessary for any humanly possible experience of any particulars, at the
very end of the Deduction; proof that those illustrations are justified is provided, by design,
in the Analytic of Principles, including the Refutation of [material] Idealism.

tet werden muß, nämlich dieses: daß sie als Bedingungen a priori der Möglichkeit der Erfahrung erkannt werden müssen (es sei der Anschauung, die in ihr ange-
240 troffen wird, oder des Denkens). Begriffe, die den objectiven Grund der Möglichkeit der Erfahrung abgeben, sind eben darum nothwendig. Die Entwicklung der Erfahrung aber, worin sie ange-
245 troffen werden, ist nicht ihre Deduction (sondern Illustration), weil sie dabei doch nur zufällig seyn würden. Ohne diese ursprüngliche Beziehung [B127] auf mögliche Erfahrung, in welcher alle Ge-
250 genstände der Erkenntniß vorkommen, würde die Beziehung derselben auf irgend ein Object gar nicht begriffen werden können. [... B128]

Vorher will ich nur noch die Erklärung der Categorien voranschicken. Sie sind Begriffe von einem Gegenstande überhaupt, dadurch dessen Anschauung in Ansehung einer der logischen Functionen zu Urtheilen als bestimmt angesehen wird. So war die Function des categorischen Urtheils die des Verhältnißes des Subjects zum Prädicat, z. B. alle Körper sind theilbar. Allein in Ansehung des bloß logischen Gebrauchs des Verstandes blieb es unbestimmt, welchem von beyden Begriffen [B129] die Function des Subjects, und welchem die des Prädicats man geben wolle. Denn man kann auch sagen: Einiges Theilbare ist ein Körper. Durch die Kategorie der Substanz aber, wenn ich den Begriff eines

guided, namely this: that they must be recognised to be *a priori* conditions of the possibility of experience (whether of intuition, in which they are met, or of thinking). Concepts which afford the objective ground of the possibility of experience are for that very reason necessary. However, unravelling - the experience in which they found is not their deduction (that is rather their illustration), since in that way they would yet remain merely contingent. Without this original connection to possible experience, in which occur all objects of cognition, their connection to any object whatsoever could not at all be comprehended. [...]

Consider first the explication of the categories. They are concepts of an object as such, by which its intuition in respect of one or more of the logical functions of judgment is regarded as determinate. Thus the function of the categorical judgment is that of the relation of subject to predicate, *e.g.*, all bodies are divisible. However in regard to the mere logical use of the understanding it remains unspecified, to which of the two concepts one may assign the function of the subject, and to which that of the predicate. For one can also say: Some divisibles are bodies. However, by the category of substance, if I subsume under it the concept of a body, it is

Kant's pronoun, *ibr* (l. 239) is not plural, but feminine singular dative: 'her'; it refers back to conditions found within sensory intuition (*Anschauung*, fem.).

B126 (ll. 240–7): Kant contrasts the Deduction to any examination of experiences within which any category may be instantiated; this stresses yet again the distinctive modality of the claims at issue in the Deduction, in contrast to the ineluctable contingencies involved in any illustrative instances. To this contrast belongs Kant's concern about the 'dignity' or (modal and justificatory) status of the concept 'cause' (B124, l. 171).

B126–7 (ll. 247–53): Kant's stress upon the possible 'connection' (*Beziehung*) of *a priori* categories to objects, where these must be (if indeed there be any for us human beings) objects of experience, underscores his concern with using concepts in connection with, *i.e.*, in deictic reference to, objects we can perceive. This is Tetens's point about 'realising' concepts, and Kant's point about 'objective reality' and 'objective validity', both of which concern possible reference to actual particulars which we *can* locate, discriminate, identify and experience.

B128 (ll. 254–60): Kant explicates the categories: They are each concepts of an object as such, by which any intuited object (any sensed particular) can be determined (specified) in regard to one or another of the formal aspects of logical functions of judgment. On Kant's Table of logical functions of judgment see Wolff (2017).

B128–9 (ll. 260–77): Kant remarks on how, in a categorical judgment, which concept is used as the subject term and which as the predicate can be indifferent, or they can be converted, *per* Aristotle's Square of Oppositions. Here Kant shrewdly exploits the existential presuppositions of Aristotelian syllogistic for epistemological insight, noting that the mere logical inter-convertibility of subject and predicate terms is abandoned by judging any sensed object to *be* a substance exhibiting some feature (now ascribed to, or predicated of it, by the exemplary, illustrative categorical judgment). On Aristotle's logical square, see Parsons (2015).

Körpers darunter bringe, wird es bestimmt: daß seine empirische Anschauung in der Erfahrung immer nur als Subject, niemals als bloßes Prädicat betrachtet werden müsse; und so in allen übrigen Categorien.

Zweiter Abschnitt. Transscendentale Deduction der reinen Verstandesbegriffe.

§ 15. Von der Möglichkeit einer Verbindung überhaupt.

Das Mannigfaltige der Vorstellungen kann in einer Anschauung gegeben werden, die bloß sinnlich, d.i. nichts als Empfänglichkeit ist, und die Form dieser Anschauung kann a priori in unserem Vorstellungsvermögen liegen, ohne doch etwas andres als die Art zu seyn, wie das Subject afficirt wird. Allein die Verbindung (conjunctio) eines Mannigfaltigen überhaupt kann niemals durch Sinne in uns kommen und kann also auch nicht in der reinen Form der sinnlichen Anschauung zugleich [B130] mit enthalten seyn; denn sie ist ein Actus der Spontaneität der Vorstellungskraft, und da man diese zum Unterschiede von der Sinnlichkeit Verstand nennen muß, so ist alle Verbindung, wir mögen uns ihrer bewußt werden oder nicht, es mag eine Verbindung des Mannigfaltigen der Anschauung oder mancherley Begriffe, und an der ersteren der sinnlichen oder nichtsinnlichen Anschauung seyn, eine Verstandeshandlung, die wir mit der all-

specified: that its empirical intuition in experience must always be regarded only as subject, never as a mere predicate; and likewise in all other categories.

Second Section. Transcendental Deduction of the Pure Concepts of the Understanding.

§ 15. Of the Possibility of a Combination as such.

The manifold of representations can be given in an intuition which is merely sensuous, *i.e.*, nothing but receptivity, and the form of this intuition can lie *a priori* in our capacity of representing, without however being anything other than how the subject is affected. Yet the *combination* (conjunctio) of this manifold as such can never enter us by the senses and so also as such cannot be contained within the pure form of sensory intuition; for it is an *actus* of spontaneity of the capacity to represent and, in contradistinction to sensibility, one must call this understanding; it thus follows that all combination – whether we are conscious of it or not, be it a combination of the manifold in intuition or in several concepts, and in the former case be it a sensory or a non-sensory intuition – is an act of the understanding to which we would give the general appellation of *synthe-*

3.3 §15: Of the Possibility of a Combination as such.

§15 begins Kant’s Second Section (*Abschnitt*), titled ‘Transcendental Deduction of the Pure Concepts of the Understanding’. Yet eleven more §§ continue to prepare for §26: ‘Transcendental deduction of the universally possible experiential use of the pure concepts of the understanding’; in §21 Kant remarks that a start has been made on the Deduction (B144, *ll.* 703–6), *i.e.*, in the first part of that very Remark (*i.e.*, §21). §§15–21, at least, are expressly preparatory.

B129 (*ll.* 283): Kant’s term ‘manifold’ simply designates some (unspecified) plurality or variety; which kind is specified by context. Here it is a plurality of representations within sensory intuition. (Below Kant comments on a manifold of representations which are *concepts* integrated within some candidate judgment; B129, *ll.* 299–303). Here (*ll.* 285–6) Kant stresses that mere sensibility is merely receptive (*i.e.*, receptive to sensory stimulations resulting in sensations).

B129 (*ll.* 283–90): Kant’s term ‘representation’ (*Vorstellung*), especially when used in sensory or perceptual contexts, must be handled carefully. Within philosophy of perception, the sense of Kant’s term often would better be conveyed by ‘presentation’ than by ‘representation’, which to Anglophone readers readily suggests an indirect theory of perception. Kant holds a direct critical (rather than naïve) realism about sensory perception. This is one consequence of not mistaking sensations for objects of self-conscious awareness, but instead treating sensations as sub-personal factors in sensory awareness of other particulars (whether in one’s surroundings or within one’s own body). This view is common to Reid, Tetens, Roy Wood Sellars, Chisholm, Wilfrid Sellars and (*e.g.*) Dretske. Bird rightly emphasises Kant’s espousing this view; *cf.* below, §5. (Kant’s direct perceptual realism holds both within his own ‘empirical realism’, and also if his transcendental idealism be rejected.)

B129 (*ll.* 283–317): Kant sharply contrasts the passivity and manifold character or content of sensory intuition to the spontaneity (activity) and discriminating, integrating, synthetic conjoining or binding (*Verbinden*) effected by intellect. His remarks carve through a host of intricate issues and options which require and receive more extensive treatment throughout the Transcendental Analytic. Kant’s key points stand independently of issues about sensory atomism, though Kant rightly raises issues about what are now called the ‘binding problems’ in perception, concerning how sensory intake can be integrated at any one time within any one sensory modality, and again synchronically across sensory modalities; and likewise how it can be integrated over time within any one sensory modality, and again diachronically across sensory modalities. However those issues are resolved, Kant’s key point pertains to information extraction, how sensory information can be, to speak with Dretske, decoded so

gemeinen Benennung Synthesis belegen würden, um dadurch zugleich bemerklich zu machen, daß wir uns nichts als im Object verbunden vorstellen können, ohne es vorher selbst verbunden zu haben, und unter allen Vorstellungen die Verbindung die einzige ist, die nicht durch Objecte gegeben, sondern nur vom Subjecte selbst verrichtet werden kann, weil sie ein Actus seiner Selbstthätigkeit ist. Man wird hier leicht gewahr, daß diese Handlung ursprünglich einig und für alle Verbindung gleichgeltend seyn müsse, und daß die Auflösung, Analysis, die ihr Gegentheil zu seyn scheint, sie doch jederzeit voraussetze; denn wo der Verstand vorher nichts verbunden hat, da kann er auch nichts auflösen, weil es nur durch ihn als verbunden der Vorstellungskraft hat gegeben werden können.

Aber der Begriff der Verbindung führt außer dem Begriffe des Mannigfaltigen und der Synthesis desselben noch den der Einheit desselben bey sich. Verbindung ist Vorstellung der synthetischen Einheit des Mannigfaltigen.*[B131] * Ob die Vorstellungen selbst identisch sind, und also eine durch die andere analytisch könne gedacht werden, das kommt hier nicht in Betrachtung. Das Bewußtseyn der einen ist, so fern vom Mannigfaltigen die Rede ist, vom Bewußtseyn der anderen doch immer zu unterscheiden, und auf die Synthesis dieses (möglichen) Bewußtseyns kommt es

sis, so as to mark expressly, that we cannot represent anything as bound together within an object, which we have not first ourselves bound together, and among all representations combination is uniquely that which cannot be given by objects, but rather is effected only by the subject itself, because it is an *actus* of its own self-activity. Here it is readily understood that this action must originally be strictly one and is equally valid for all combination, and that the resolution, *analysis*, which seems to be its opposite, nevertheless always presupposes it; for where understanding has not already conjoined, there it cannot at all disjoin, inasmuch as only *through it* can anything as combined be offered to our power of representing.

However, the concept of combination carries with it, besides the concept of the manifold and of its synthesis, also the concept of their unity. Combination is representation of the *synthetic* unity of a manifold.*

* Whether the representations are themselves identical, so that the one through the other can be thought analytically, is not pertinent here. Insofar as the topic here is the manifold, consciousness of the one is of course always to be distinguished from consciousness of the other, and the sole concern here is the synthesis

that we are able to sense our surroundings (or also our proprioception), and yet again, how information can be extracted from and exploited in express judgments, beliefs or claims about what we perceive in our surroundings (or also within our own bodies). Here especially Kant's discernment of these issues about processes of sensory integration (*quid facti*) pose important issues of how our sensory-perceptual systems function, which pose yet more important epistemological issues (*quid iuris*) of how our judgmental capacities can accurately and justifiably exploit information extracted from sufficiently reliable and accurate sensory perception. Most importantly, Kant soon stresses (B131*n.*, ll. 334–49) that for us to think anything whatsoever about any sensed particular at all requires discerning, differentiating, identifying and integrated some plurality of *its* features so as to form any, even candidate cognitive judgment about *that particular*. This intellectual, judgmental achievement, whatever concepts (classifications) it invokes, involves both analysis and synthesis; it holds independently of questions about whether or how such 'unity' amongst diverse aspects or features of things may (not) 'enter' our cognizance *via* our sensory channels.

B130 (ll. 290–317): Kant stresses his key point, that any and all connecting (*Verbindung*) as such is a spontaneous act of our capacity to represent, an act of intellection, regardless of whether (i) we are conscious of the connecting or not, (ii) the connected manifold be intuitive (sensory) or may be a plurality of concepts, (iii) whether a form of intuition is sensory or non-sensory. Human intuiting is sensory; Kant sets aside the last option, but each of the others is central to *KdrV*, and especially: whether we are conscious of various factors required of, or involved in our cognizance is irrelevant: 'transparency of consciousness' is a Cartesian myth, followed faithfully by Hume, which by-passes Kant's key issue: How are we at all able to achieve self-conscious awareness? Kant's *KdrV* is guided by this insight: 'Now it is indeed very enlightening, that whatever I must presuppose in order at all to know any object, cannot itself be known as object [...]' (A402).

B130 (ll. 306–33): Kant approaches more closely his ultimate point by stressing that knowing any object requires recognising that within *it* various features or aspects are integrated, but our *representing* any such integration of a plurality of features within any one particular requires that *we* differentiate those features *and* re-integrate them so as to ascribe them all to *that particular* insofar as we recognise these features to be integral to *it*. Any particular is an actual synthetic unity of manifold features; both sensory perception, and also *knowing* or recognising that particular, require actually integrating (synthesising) at least some of its several features. That 'we' actively integrate sensory intake does not entail that we do so self-consciously; sensory integration is active, yet entirely sub-personal; express cognitive judgment is self-conscious, but may involve or require many further implicit features or aspects of judging. Kant here stresses the spontaneous act of judgmental synthesis or integration of

hier allein an.

Die Vorstellung dieser Einheit kann
345 also nicht aus der Verbindung entstehen,
sie macht vielmehr dadurch, daß sie zur
Vorstellung des Mannigfaltigen hinzu-
kommt, den Begriff der Verbindung al-
lererst möglich. Diese Einheit, die a prio-
350 ri vor allen Begriffen der Verbindung
vorhergeht, ist nicht etwa jene Kategorie
der Einheit (§ 10); denn alle Kategorien
gründen sich auf logische Functionen in
Urtheilen, in diesen aber ist schon Ver-
355 bindung, mithin Einheit gegebener Be-
griffe gedacht. Die Kategorie setzt also
schon Verbindung voraus. Also müssen
wir diese Einheit (als qualitative, § 12)
noch höher suchen, nämlich in demjeni-
360 gen, was selbst den Grund der Einheit
verschiedener Begriffe in Urtheilen, mit-
hin der Möglichkeit des Verstandes so-
gar in seinem logischen Gebrauche ent-
hält.

365 **§ 16.** Von der ursprünglich-syntheti-
schen Einheit der Apperception.

Das: Ich denke, muß alle meine
Vorstellungen begleiten [B132] können;
denn sonst würde etwas in mir vorge-
370 stellt werden, was gar nicht gedacht wer-
den könnte, welches eben so viel heißt,
als die Vorstellung würde entweder un-
möglich, oder wenigstens für mich
nichts seyn. Diejenige Vorstellung, die

of this (possible) consciousness.

The representation of this unity can
thus not arise from conjunction; ra-
ther, by coming to the representation
of the manifold, [this unity] first
makes possible the concept of com-
bination. This unity, which precedes
a priori all concepts of combination, is
not as it were that category of unity
(§ 10); since all categories are ground-
ed upon logical functions of judging,
yet in these is already thought: con-
junction, hence unity of given con-
cepts. Thus the category already pre-
suppose conjunction. Thus we must
seek this unity (as qualitative, § 12)
still further up, namely, in whatever is
the ground of the unity of diverse
concepts within judgments, or in
whatever contains the possibility of -
the understanding in its logical use.

§ 16. Of the Original-Synthetic Unity
of Apperception.

The *I think* must be able to accom-
pany all my representations; for oth-
erwise something would be repre-
sented in me which could not be at
all thought; which would mean that
the representation itself would either
be impossible or else be nothing for
me. That representation which can be

conceived (classified) features of any one object judged (*ll.* 299–17). Such spontaneous judg-
mental integration holds for any and all forms of judging, and whatever concepts are inte-
grated within a judgment (*ll.* 317–20).

B131*n.* (*ll.* 334–43): Kant's footnote (*) rightly stresses that the relevant syntheses concern
our own judgments, whether these concern specifications, marks or *Merkmale* within any
one concept (intension), or aspects of any *one* particular, including those which can only be
distinguished by reason because there is no real distinction between them (*e.g.*, colour and
extension), or various relations between any plurality of particulars. Each of the relevant
aspects must be differentiated, identified and integrated within some judgment, so as to as-
cribe those characteristics or relations to relevant concepts or to relevant particulars. This
key point about judgmental differentiation, integration and attribution (ascription) is one key
reason why Kant's transcendental deduction can succeed, independently of his transcenden-
tal idealism, by justifying the presuppositional sense of 'constitution of objects' as constitut-
ing objects *as* objects of our self-conscious awareness (above, §2.15).

B131 (*ll.* 344–64): As Wolff (2017) notes, cognitive judgments are complex; they integrate
several judgments and several functions of judgment in discriminating whatever particular(s)
we do so as to identify it (or them) and its (or their) features. Any category used in a judg-
ment integrates at least those features indicated by (at least) two concepts, but categories are
used and logical functions of judging are exercised in complex combinations which we do
integrate. This most fundamental integration, conjunction or 'synthesis' makes possible the
use of any one *and* of any plurality of categories, and of any plurality of logical functions of
judging. To be effective at all, these complex syntheses must be possible for us, but they are
not made by possible by any one category, nor by several categories severally (individually).
There must be a more comprehensive, fundamental form of synthesis to effect cognitive
judgment at all; this is Kant's quarry, first expressly identified in §16.

3.4 §16: Of the Original-Synthetic Unity of Apperception.

B131–2 (*ll.* 367–74): Kant's key thesis about the 'I think' is expressly modal; the self-reflexive
thought, 'I think ...', *can* accompany any representations of which any one of us *can* be self-
aware. Kant again acknowledges that many representations may occur within one's (so to
speak) mentality without ever being connected with self-conscious apperception, or without
possibly being so connected. *E.g.*, Kant follows Tetens (1777, 1:306, 338, 375–6) and Reid
(1765, Ch. 6, §§8, 20–22; *cf.* below, §5) by holding that typically visual sensations themselves
are rarely if ever *objects* of our self-conscious (apperceptive) awareness. Rather, typically, sen-
sations are sub-personal states or events which are aspects of *acts* of awareness of some par-

375 vor allem Denken gegeben seyn kann, heißt Anschauung. Also hat alles Mannigfaltige der Anschauung eine nothwendige Beziehung auf das: Ich denke, in demselben Subject, darin diese Mannigfaltige angetroffen wird. Diese Vorstellung aber ist ein Actus der Spontaneität, d. i. sie kann nicht als zur Sinnlichkeit gehörig angesehen werden. Ich nenne sie die reine Apperception, um sie von der empirischen zu unterscheiden, oder auch die ursprüngliche Apperception, weil sie dasjenige Selbstbewußtseyn ist, was, indem es die Vorstellung Ich denke hervorbringt, die alle andere muß begleiten können, und in allem Bewußtseyn ein und dasselbe ist, von keiner weiter begleitet werden kann. Ich nenne auch die Einheit derselben die transcendentale Einheit des Selbstbewußtseyns, um die Möglichkeit der Erkenntnis a priori aus ihr zu bezeichnen. Denn die mannigfaltigen Vorstellungen, die in einer gewissen Anschauung gegeben werden, würden nicht insgesamt meine Vorstellungen seyn, wenn sie nicht insgesamt zu einem Selbstbewußtseyn gehörten, d. i. als meine Vorstellungen (ob ich mich ihrer gleich nicht als solcher bewußt bin) müssen sie doch der Bedingung notwendig gemäß seyn, unter der sie allein in einem allgemeinen Selbstbewußtseyn zusammenstehen können, [B133] weil sie sonst nicht durchgängig mir angehören würden. Aus dieser ursprünglichen Ver-

given prior to all thought, is called *intuition*. Thus all the manifold of intuition has a necessary connection to the: *I think* of that same subject in which this manifold is found. This representation is however an act of spontaneity, *i.e.*, it cannot be regarded as belonging to sensibility. I call this the *pure apperception*, to distinguish it from the empirical; it may also be called the *original apperception*, inasmuch as it is that self-consciousness which, since it produces the representation *I think*, which must be able to accompany all others, and which in all consciousness is one and the same, cannot be accompanied by any further representation. I also call the unity within it the *transcendental* unity of self-consciousness, to indicate the possibility it affords of cognition *a priori*. For the manifold representations which are given in any one intuition would not be collectively *my* representations, if they did not collectively belong to one single self-consciousness, *i.e.*, as my representations (even if I am not presently aware of them as such), hence necessarily they must accord with the condition under which alone they can stand together in one universal self-consciousness, because otherwise they would not all belong to me. From this original conjunction much can be inferred.

ticular, whether a particular in one's surroundings or a particular condition of one's own body. This contrast between sub-personal sensory and perceptual states (and whatever processing such sensory intake requires) and any self-conscious awareness of our surroundings or our own internal states Kant marks by distinguishing (as did Leibniz) between 'perception' and 'apperception'. Hence Kant's readiness to acknowledge that various representational states may occur within 'me' of which 'I' am unaware (*ll.* 367–71).

Kant uses the ordinary German term *Gemüt* to render into German the Latin term *animus*, familiar from the Latin title to Aristotle's *de Anima*, pertaining to whatever makes a living being alive and active. English provides us only 'mind' and 'body', obscuring utterly Kant's concern with human embodiment and whatever animates us = our human *Gemüt*. Kant uses this term to avoid taking a stand on Cartesian dualism of *mens* and *corpora* – a dualism of mind and body Descartes advocates in the *Meditations* and *Principles*, though otherwise advocating a much more nuanced view (Ferrini 2015).

B132 (*ll.* 376–80): Kant states that any and all intuitive manifold(s) are necessarily connected to the 'I think'. That they are connected *necessarily* does not entail they are connected *directly* by self-conscious introspection! Kant's statement neither invokes nor endorses Cartesian self-transparency, nor any form of intellectual intuition.

B132 (*ll.* 376–93): Having stressed the spontaneous act of discerning, differentiating and integrating various factors ('cognitions', whether concepts, sensed features or identified, localised sensed particulars) in (candidate) cognitive judgments (§§15–17), and that this most fundamental synthetic conjoining is more fundamental than any specific combination (synthesis) by using any one category to classify, or any one judgment to integrate, categorial classifications in any one instance (§§15–17), Kant now contends that this most fundamental active, synthetic integrating is expressed (if incompletely) by the apperceptive, self-referential 'I think ...', which of course requires its complement content(s).

B132 (*ll.* 378–411): The 'original' apperception expressed by the 'I think ...' is unitary, insofar as one and the same active self-conscious subject thinks each and every one of its various thoughts, including those thoughts about whatever it may apperceptively experience. The unity of this 'I think' Kant calls the 'transcendental unity of self-consciousness' because from it can be deduced further knowledge *a priori*. This matches his initial gloss on 'transcendental' (Tr. Aesth. §3, B40), namely: 'the explication of a concept as a principle which affords the possibility of other synthetic cognitions *a priori*. This aim requires (1) that such cognitions actually flow from the given concept, (2) that these cognitions are only possible under the presupposition of a specific, given explication of this concept'.

bindung läßt sich vieles folgern.

Nemlich diese durchgängige Identität der Apperception eines in der Anschauung gegebenen Mannigfaltigen, enthält
415 eine Synthesis der Vorstellungen, und ist nur durch das Bewußtseyn dieser Synthesis möglich. Denn das empirische Bewußtseyn, welches verschiedene Vorstellungen begleitet, ist an sich zerstreut und
420 ohne Beziehung auf die Identität des Subjects. Diese Beziehung geschieht also dadurch noch nicht, daß ich jede Vorstellung mit Bewußtseyn begleite, sondern daß ich eine zu der andern hinzusetze und mir der Synthesis derselben bewußt bin. Also nur dadurch, daß ich ein Mannigfaltiges gegebener Vorstellungen in einem Bewußtseyn verbinden kann, ist es möglich, daß ich
425 mir die Identität des Bewußtseyns in diesen Vorstellungen selbst vorstelle, d.i. die analytische Einheit der Apperception ist nur unter der Voraussetzung irgend einer synthetischen
430 möglich. [B134]

Der Gedanke: diese in der Anschauung gegebene Vorstellungen gehören mir insgesamt zu, heißt demnach so viel, als ich vereinige sie in einem Selbstbewußtseyn, oder kann sie wenigstens darin vereinigen, und ob er gleich selbst noch nicht das Bewußtseyn der Synthesis der Vorstellungen ist, so setzt er doch die Möglichkeit der letzteren voraus, d.i.
440 nur dadurch, daß ich das Mannigfaltige derselben in einem Bewußtseyn begrei-

This is to say, this thorough-going identity of apperception of that manifold given in [an] intuition contains a synthesis of representations and is only possible through the consciousness of this synthesis. For the empirical consciousness which accompanies various representations is as such dispersed and without connection to the identity of the subject. This connection is not effected merely by my accompanying each representation with consciousness, but rather that I *combine* one to the others and am conscious of their synthesis. Thus only because I can comprehend the manifold of given representations *in one consciousness* is it possible that I can represent to myself this very *identity of consciousness within these representations*, *i.e.*, the *analytic* unity of apperception is only possible on the presupposition of some kind of *synthetic* unity.

The thought: all these representations given in intuition altogether belong to me, amounts to this, that I unify them in one self-consciousness, or can at least so unify them, and if this is not itself at once the consciousness of the *synthesis* of representations, it nevertheless presupposes the possibility of this latter, *i.e.* only because I can comprehend their manifold in one consciousness do I call

B133 (*ll.* 412–35): Kant draws his first major conclusion about human apperception from his explication of its transcendental unity: Even if we were to grant that individual perceptions, as perceptive states or events, were also self-conscious states, these are only individually, distributively perceptive or also apperceptive states. As such and in principle none of them, whether single or plural, can or does account for any *one* conscious (or self-conscious) state of awareness *of any plurality* of those individual perceptive states. If such perceptions are ‘about’ anything, they are not about one another; nor do they bundle themselves together into any one, more complex conscious state. Conscious awareness of any two or more perceptual states of consciousness as its content or object. Hume was quite right that nothing in his empiricist principles can or does account for such unitary, compound conscious awareness of any pair or plurality of first-order perceptions. Hume’s official empiricism cannot at all explicate or justify his own use of the term ‘judgment’, nor even of ‘word’; neither can it account for all the many cognisant activities and achievements of ‘imagination’ (Westphal 2013). For each of us apperceptive human beings, insofar as ‘I’ can think of any of my various perceptual episodes, I can have *one* comprehensive awareness of those many perceptual episodes, and be aware of them all as *my* own perceptual episodes. How extensive or accurate such comprehensive apperception may be is entirely a further question. Also a further question is whether or how this point can aid our insight into whether or how well we actually can or do know any empirical particulars. This latter is Kant’s topic in the Analytic of Principles; it is *not* his topic in the Transcendental Deduction of the Pure Concepts of the Understanding! Misunderstanding this point is central to many objections to Kant’s (purported) Deduction. Instead, Kant’s Deduction aims to show that we cannot at all *think* or achieve any apperception unless we successfully use categories in some candidate cognitive judgment(s) about anything presented us by sensory intuition (B134–5, *ll.* 436–82). One key point here (*ll.* 417–35) is that any analytically unitary ‘I think ...’ only occurs *as* the unitary (identical) first-person self-referential thought *of* some plurality of one’s self-conscious states, where this plurality of *self-conscious* states is some *synthetic* unity of self-consciousness (apperception). This unitary synthetic apperception consists in self-consciously representing some plurality of one’s own conscious (perceptive) states. The analytical unity of apperception (whenever it occurs) requires some synthetic unity of apperception.

B134 (*ll.* 436–56): Kant here contrasts the mere distributively perceptive or (for the sake of discussion) apperceptive states afforded by the Cartesian equation of sensations with whatever one *takes* oneself to sense (Med. 2, AT 7:29) and its progeny within the empiricist (sensory atomist) traditions to the unitary collective self-consciousness required to recognise any *plurality* of such states *as one’s own*. Such recognition requires a single comprehensive grasping

fen kann, nenne ich dieselbe insgesamt meine Vorstellungen; denn sonst würde ich ein so vielfärbiges, verschiedenes
 450 Selbst haben, als ich Vorstellungen habe, deren ich mir bewußt bin. Synthetische Einheit des Mannigfaltigen der Anschauungen, als *a priori* gegeben, ist also der Grund der Identität der Apperception
 455 selbst, die *a priori* allem meinem bestimmten Denken vorhergeht. Verbindung liegt aber nicht in den Gegenständen und kann von ihnen nicht etwa durch Wahrnehmung entlehnt und in
 460 den Verstand dadurch allererst aufgenommen werden, sondern ist allein [B135] eine Verrichtung des Verstandes, der selbst nichts weiter ist als das Vermögen, *a priori* zu verbinden und das Mannigfaltige
 465 gegebener Vorstellungen unter Einheit der Apperception zu bringen, welcher Grundsatz der oberste im ganzen menschlichen Erkenntniß ist.

Dieser Grundsatz der nothwendigen
 470 Einheit der Apperception ist nun zwar selbst identisch, mithin ein analytischer Satz, erklärt aber doch eine Synthesis des in einer Anschauung gegebenen Mannigfaltigen als nothwendig, ohne welche
 475 jene durchgängige Identität des Selbstbewußtseyns nicht gedacht werden kann. Denn durch das Ich als einfache Vorstellung ist nichts Mannigfaltiges gegeben; in der Anschauung, die davon unterschieden ist, kann es nur gegeben und
 480 durch *Verbindung* in einem Bewußtseyn gedacht werden. [...] [B136]

them all my representations; since otherwise I would have as many-coloured, diverse a self as I have representations of which I am consciousness. Synthetic unity of the manifold of intuition, as given *a priori*, is thus the ground of the identity of apperception itself, which *a priori* precedes any and all of *my* specific thinking. However, conjunction never lies in the objects and cannot possibly be borrowed from them through perception and only thus taken up into the understanding; instead it is entirely an achievement of understanding, which itself is nothing other than the capacity to conjoin *a priori* and to bring the manifold of given representations under the unity of apperception; this principle is the ultimate principle in all human cognition.

Now this principle of the necessary unity of apperception is itself of course identical, thus an analytical proposition, yet it explains the necessary synthesis of the manifold given in an intuition, without which that thorough-going identity of self-consciousness cannot be thought. For through the 'I' as simple representation nothing manifold is given; only in the intuition, which is different from that, can it be given and by *conjunction* in one consciousness can it be thought. [...]

of some multitude of perceptive states *together* in one unitary thought of those states *as* one's own. Even granting (generously) that individual perceptive states may also be apperceptive states only suffices for distributive apperception of each such state; in principle it does not and cannot suffice for unitary awareness of any *plurality* of such states *as* one's own. In exactly this regard Kant stresses the synthetic *unity* of any manifold sensory intuition(s) as the ground for the possibility of any *identical* apperception by which one *can* identify that plurality of sensory intuition(s) (perceptions) as one's own perceptions (ll. 436–56).

B134 (ll. 451–6), B135 (ll. 469–76): Kant's thesis is that the synthetic unity of the manifold of sensory intuition is the ground of the identity of apperception holds distributively for any humanly possible instance of 'I think ...'. This thesis does not address how extensive or persisting anyone's personal identity may be. It explicates *a priori* conditions required *to think* (ll. 472–6) any such apperceptive identity.

B134–5 (ll. 456–68): Kant again claims that combining or *Verbindung* is not due to objects and cannot be absorbed from them. Certainly conjoining or binding as activities are not effected within or by any objects; objects *have* whatever plurality of features they do. The key point is indeed intellective: that *recognising* any object to have any features requires recognising *it* and ascribing *to it* some plurality of features. This requires (i) discriminating, recognising and integrating those features into the sensory perception of *that* particular and (ii) explicitly discriminating, identifying (classifying) and integrating those (classified) features in any judgment by which one *ascribes* those features to *that* particular. Those are two different sets of achievements; later (§§24, 26n.) Kant ascribes the former, sensory-perceptual achievements to the transcendental power of (productive) imagination (functioning sub-personally), and the latter to the understanding as our capacity to make express, explicit judgments about anything we can or do perceive.

B135 (ll. 461–8): The most fundamental characteristic of our capacity to judge at all, *i.e.*, our understanding, is its capacity to combine according to its own *a priori* functions pluralities of representations so that they *can* be brought under the unity of apperception. This is, Kant states, the highest principle of human cognition.

B135 (ll. 470–82): Kant expressly contrasts the conceptual simplicity of the thought, 'I think', which is 'identical' by default: it neither expresses, integrates nor differentiates any plurality whatsoever; hence it is 'analytic' by default: it has no internal semantic (intensional) complexity which could be explicated, explicitated or otherwise articulated. This very simplicity highlights that any *use* of this thought, or any occasion for thinking this thought, must have its judgmental, intensional or sentential complement: some thought think by any 'I'. No such complement can be provided by the 'I think' itself; it must be otherwise provided. The

§ 17. Der Grundsatz der synthetischen Einheit der Apperception ist das oberste Princip alles Verstandesgebrauchs.

Der oberste Grundsatz der Möglichkeit aller Anschauung in Beziehung auf die Sinnlichkeit war laut der transscendentalen Ästhetik: daß alles Mannigfaltige derselben unter den formalen Bedingungen des Raums und der Zeit stehe. Der oberste Grundsatz eben derselben in Beziehung auf den Verstand ist: daß alles Mannigfaltige der Anschauung unter Bedingungen der ursprünglich-synthetischen Einheit der Apperception stehe. Unter dem ersteren stehen alle mannigfaltige Vorstellungen der Anschauung, so fern sie uns gegeben werden, unter dem zweiten, so fern sie in einem Bewußtseyn müssen verbunden [B137] werden können; denn ohne das kann nichts dadurch gedacht oder erkannt werden, weil die gegebene Vorstel-

§ 17. The Principle of the Synthetic Unity of Apperception is the Highest Principle of all Use of the Understanding.

The ultimate principle of the possibility of all intuition in connection to sensibility was, according to the Transcendental Aesthetic, this: that all its manifold must stand under the formal conditions of space and time. The ultimate principle of that same possibility in connection to understanding is: that all manifold of intuition (would) stand under conditions of the original synthetic unity of apperception. All manifold representations of intuition stand under the former, so far as they are *given* to us; and under the latter, so far as they must be able to be conjoined within one single consciousness; for without such conjunction nothing can be thought or cognised, because the

most general answer can only be that some sensory intuition(s) presents some comprehensible content which *can be* thought (conceived, judged), and conceived *as* one's own thought of ____ (whatever is sensorily presented). Thought without content is empty; mere sensory content(s) are 'blind' (B75), since they do not and cannot provide or afford any apperceptive thought of or through them about anything whatever. In these regards Kant examines the most basic logical functions of thought and judgment to highlight that the Cartesian *cogito* can only be a result, indeed an abstraction from a result; it is not the automatic, fixed starting point it is so widely presumed to be. Any occasion to think '*I think ...*' is parasitic upon some actual occasion(s) in which one at least presumptively perceives something of one's surroundings. The Deduction underscores that no thought and no thinking is at all humanly possible without exercising (if wittingly, sub-personally or implicitly) some of our most basic judgmental capacities to discriminate, differentiate, and integrate various features of any one perceived particular in order to perceive *that* individual.

3.5 §17: The Principle of the Synthetic Unity of Apperception is the Highest Principle of the Use of the Understanding.

B136–7 (*ll.* 487–508, *cf. ll.* 477–82): Kant begins by noting a parallel between the transcendental deduction of the concepts 'space' and 'time' in the Transcendental Aesthetic (§13, B121, *cf. Tr. Aesth.* §§3, 5, B40, 48, 63–4), that anything which appears to us by sensibility must be temporal, and much of it must also be spatial; hence the concepts 'time' and 'space' must pertain to these domains (respectively). (Kant's Transcendental Idealism, his hallmark thesis that space itself = nothing but a human form of sensory receptivity + time itself = nothing but a human form of sensory receptivity (*Tr. Aesth.* §§6, 8, esp. B59–60), may be elided here and throughout much of Kant's Deduction by substituting a weaker thesis, that our human form of sensory receptivity is only receptive (sensitive, responsive) to spatio-temporal particulars; *cf.* above, §2.15.)

B136–7 (*ll.* 487–508): Kant's parallel claim about apperception is expressly modal: Whatever *can* at all be thought must in principle be integratable with and by the original unity of apperception so as to be at all a candidate for *my* express, self-conscious thought *that* such-and-so.

B137 (*ll.* 510–26): Speaking generally, Kant glosses understanding as the capacity for cognitions, and any cognition as the determinate connection of given representations to an object. This determinate connection is *ascriptive*: ascribing features *to* some sensed, localised particular *as its* features. This is a key point at which Kant's concern with process highlights a key epistemological issue about cognitive semantics, which requires at least putative deictic reference and putative ascription of features to some particular(s). These epistemological

lungen den Actus der Apperception: Ich denke, nicht gemein haben und dadurch nicht in einem Selbstbewußt-seyn zusammengefaßt seyn würden.

510 Verstand ist, allgemein zu reden, das Vermögen der Erkenntnisse. Diese bestehen in der bestimmten Beziehung gegebener Vorstellungen auf ein Object. Object aber ist das, in dessen Begriff
515 das Mannigfaltige einer gegebenen Anschauung vereinigt ist. Nun erfordert aber alle Vereinigung der Vorstellungen Einheit des Bewußtseyns in der Synthesis derselben. Folglich ist die Einheit des
520 Bewußtseyns dasjenige, was allein die Beziehung der Vorstellungen auf einen Gegenstand, mithin ihre objective Gültigkeit, folglich daß sie Erkenntnisse werden, ausmacht, und worauf folglich
525 selbst die Möglichkeit des Verstandes beruht.

Das erste reine Verstandeserkenntnis also, worauf sein ganzer übriger Gebrauch sich gründet, welches auch zu
530 gleich von allen Bedingungen der sinnlichen Anschauung ganz unabhängig ist, ist nun der Grundsatz der ursprünglichen synthetischen Einheit der Apperception. So ist die bloße Form der
535 äußeren sinnlichen Anschauung, der Raum, noch gar keine Erkenntnis; er gibt nur das Mannigfaltige der Anschauung a priori zu einem möglichen Erkenntnis. Um aber irgend etwas im Raume zu er-
540 kennen, z.B. eine Linie, muß ich sie zie-

given representations would have nothing in common with the *actus* of apperception, *I think*, and so would not be brought together into one single self-consciousness.

Generally speaking, understanding is the capacity for *cognitions*. These consist in determinate connection of given representations to an object. However, *object* is that in the concept of which the manifold of a given intuition is *united*. Now all unification of representations requires unitary consciousness in their synthesis. Consequently the unity of consciousness is that which alone constitutes the connection of representations to an object (*Gegenstand*), and thus their objective validity, so that they become cognitions, and thus is that upon which rests the possibility of the understanding itself.

Thus the first pure cognition of the understanding, upon which is grounded its entire further use, which also is altogether independent of all conditions of sensible intuition, is the principle of the original *synthetic* unity of apperception. Thus the mere form of our outer sensory intuition, space, is not yet a cognition; it only affords *a priori* the manifold of intuition to a possible cognition. Yet actually to know anything whatever in space, *e.g.*, a line, I must draw it and so effect synthetically a determinate connec-

issues must await the Analytic of Principles; here Kant anticipates that whatever we may putatively know, and however (and however well) we may putatively know it, requires of us actively discerning, differentiating, identifying *and* integrating some plurality of information by which alone we can (even putatively) localise any candidate particular object of knowledge and ascribe (even putatively) any features to *it*. All of this requires that we can expressly and explicitly make such cognitive judgments, which requires that we can indeed think 'I think' in connection with whatever judgments we consider making about *this* or *these* particular(s). Only by such intellectual, judgmental integration of some plurality of sensory and classificatory information can our proto-cognitive states have any 'objective validity' as (re)presenting *this* apperceived state of affairs. Only insofar as we *can* engage actively in scrutinising whatever we experience and identifying at least some of it, do we have and exercise any understanding whatsoever.

B137–8 (*ll.* 527–76): Kant further explicates his thesis concerning the principle of the original synthetic unity of apperception, by highlighting that, merely because our sensibility presents to us whatever it may within space and time and in some regard or other *as* spatial and temporal, does not at all specify, individuate or discriminate any particular(s) *within* space or time. That the concept 'time' as such cannot serve to delimit any periods of time, and so cannot serve to delimit any appearance(s) within any period of time, is underscored by Kant's reason why the Tr. Aesth. cannot include even the mere concept 'alteration' (*Veränderung*) among its *a priori* data, because any alteration must instead be some altering *within* time at some time or during some period of time, and would require some perception of something existing which exhibits successive features (A41/B58); *mutatis mutandis*, the same would hold of the concept 'space' (*cf.* B195). Hence these concepts do not suffice for cognition (of particulars; *l.* 513, *cf.* *ll.* 539–40), though they are required for the possibility of their cognition (*ll.* 534–38). Kant appeals to his earlier point about the concepts 'space' and 'time', that they indicate unbounded continuous manifolds, one successive, the other concurrent though extended (spatially), yet these concepts can be arbitrarily delimited so as to circumscribe periods of time or regions of space, or both together (B39–40, 47–8). Here Kant adds that any cognitive use of such specifications of spatio-temporal scope requires that one *can* be aware of the unity of each or any such bounded region, so as to be able to know *that* region as one specific particular region (*ll.* 534–48), and (prospectively) to be able to know any particular occupying that region (§26).

B138 (*ll.* 539–57): The synthetic unity of consciousness required to delimit and to designate any such spatio-temporal region is thus 'an objective condition of all cognitions', insofar as it is required to have any, even putative particular object of awareness or prospective ascription within some indicated region, *as* an object one presumes to be aware *of*, because what-

hen und also [B138] eine bestimmte Verbindung des gegebenen Mannigfaltigen synthetisch zu Stande bringen, so daß die Einheit dieser Handlung zugleich die
545 Einheit des Bewußtseyns (im Begriffe einer Linie) ist, und dadurch allererst ein Object (ein bestimmter Raum) erkannt wird. Die synthetische Einheit des Bewußtseyns ist also eine objective Bedingung aller Erkenntniß, nicht deren ich
550 bloß selbst bedarf, um ein Object zu erkennen, sondern unter der jede Anschauung stehen muß, um für mich Object zu werden, weil auf andere
555 Art und ohne diese Synthesis das Mannigfaltige sich nicht in einem Bewußtseyn vereinigen würde.

Dieser letzte Satz ist, wie gesagt, selbst analytisch, ob er zwar die synthetische Einheit zur Bedingung alles Denkens macht; denn er sagt nichts weiter, als, daß alle meine Vorstellungen in irgend einer gegebenen Anschauung unter der Bedingung stehen müssen, unter der
565 ich sie allein als meine Vorstellungen zu diesem identischen Selbst rechnen, und also, als in einer Apperception synthetisch verbunden, durch den allgemeinen Ausdruck Ich denke zusammenfaßen kann.
570

Aber dieser Grundsatz ist doch nicht ein Prinzip für jeden überhaupt möglichen Verstand, sondern nur für den, durch dessen reine Apperception in der
575 Vorstellung: Ich bin, noch gar nichts Mannigfaltiges gegeben ist. [...] [B139]

tion of the given manifold, so that the unity of this act is equally also the unity of consciousness (in the concept of a line), so that thereby an object (a determinate space) is at all known. The synthetic unity of consciousness is thus an objective condition of all cognition, not only to enable me to know an object, but one under which must stand any intuition, if it is *to become an object for me*, because in any other way and without this synthesis, the manifold would not be united within one single consciousness.

This last proposition itself is, as mentioned, analytic, though it makes the synthetic unity into a condition of all thinking; for it says no more than that all of my representations in whatever given intuition must stand under the condition under which alone I can ascribe them as *my* representations to this identical self, and thus, as conjoined synthetically within one apperception, [I can] summarily grasp them all together with the general expression: *I think*.

Yet this principle is of course not a principle for any possible understanding as such, but rather only for that kind, through whose pure apperception in the representation: *I am*, nothing at all manifold is yet given. [...]

ever particular(s) we can know occupy such regions, and because any possible thought one can have *of* any one such particular requires that one *can* (and often does) self-consciously integrate such cognitively crucial information so that any of us *can* think: ‘I think ...’ in regard to *this* designated, circumscribed, localised, sensorily presented particular. The sense of ‘objective’ condition is that such thoughts can have objective validity by actually being *about* particulars one judges – or mis-judges as the case may be, though Kant’s transcendental proof of (Critical commonsense, direct perceptual) realism rules out the sceptical generalisation from the occasional, yet ubiquitous possibility of perceptual errors or illusions to the sceptical hypothesis of global perceptual scepticism. (This is the key point of his Refutation of Idealism, B275–87.)

B138 (ll. 539–57): Most directly, for any object to *be* an object *for me* requires that I *can* think in regard to it ‘*I think ...*’. This analytically simple apperceptive thought is a necessary aspect of any such thought *about* any particular of which any human being *can be* self-aware. And this analytically simple, self-referential apperceptive thought only occurs, and only pertains to knowledge, insofar as one thinks ‘*I think ...*’ in connection to some *synthetic* unity, some judgmentally integrated classifications *of* the spatial region occupied by some particular exhibiting such-and-so (identified, classified, ascribed) features (however approximately).

B138 (ll. 558–70): Kant again contrasts the conceptual simplicity of the thought, ‘I think’, which is ‘identical’ (cf. B135, ll. 469–82) or ‘analytic’, which is decisive precisely because its possibility requires some (one or another, however episodic or extensive) *synthetic* unity, and it makes possible any self-conscious thought about any particulars we *can* think of or about.

B138 (571–6): Kant underscores that his explication of any humanly possible ‘*I think ...*’, under what necessary conditions *a priori* it is possible, and what cognitive achievements its occurrence represents, are not conceptual truths as such; they cannot and do not belong to any ‘analytic transcendental argument’; they are conceptual *explications* (per B755–8) and pertain to a specific kind of understanding *qua* capacity to judge, namely any kind whose apperceptive thought, ‘*I think ...*’, does not automatically contain or provide anything manifold. Its very simplicity is Kant’s key to demonstrating that thinking this thought is parasitic (dependent) upon other cognitive achievements, as conditions necessary for the possibility of human apperception. Only very few of these conditions are identified within the Deduction; most are identified in the Analytic of Principles; cf. B122–3 (ll. 88–145), B164–5 (ll. 1128–70) re: transcendental affinity, and B162 (ll. 1084–99) re: seeing a house (and *KCE*, Pt 2).

§ 18. Was objective Einheit des Selbstbewußtseyns sei.

Die transscendentale Einheit der Apperception ist diejenige, durch welche alles in einer Anschauung gegebene Mannigfaltige in einen Begriff vom Object vereinigt wird. Sie heißt darum objectiv und muß von der subjectiven Einheit des Bewußtseyns unterschieden werden, [...]. [B140] Dagegen steht die reine Form der Anschauung in der Zeit, bloß als Anschauung überhaupt, die ein gegebenes Mannigfaltiges enthält, unter der ursprünglichen Einheit des Bewußtseyns lediglich durch die nothwendige Beziehung des Mannigfaltigen der Anschauung zum Einigen: Ich denke, also durch die reine Synthesis des Verstandes, welche a priori der empirischen zum Grunde liegt. Jene Einheit ist allein objectiv gültig; [...]

§ 19. Die logische Form aller Urtheile besteht in der objectiven Einheit der Apperception der darin enthaltenen Begriffe.

[...] Wenn ich aber die Beziehung gegebener Erkenntnisse in jedem Urtheile genauer untersuche, und sie, als dem Verstand angehörige, von dem Verhältnisse nach Gesetzen der reproductiven Einbil-

§ 18. What is Objective Unity of Self-Consciousness.

The *transcendental unity* of apperception is that unity through which all the manifold within an intuition is united within a concept of an object. This unity is thus called *objective*, and must be distinguished from the *subjective unity* of consciousness. [...] In contrast, the pure form of intuition in time, merely as intuition as such, which contains a given manifold, stands under the original unity of consciousness solely in consequence of the necessary connection of the manifold of intuition to one: I think; that is, it so stands solely in consequence of the pure synthesis of understanding, which synthesis is presupposed *a priori* by any empirical synthesis. The former unity alone is objectively valid; [...].

§ 19. The Logical Form of all Judgments consists in the Objective Unity of the Concepts they Contain.

[...] However, if I examine the connection of given cognitions in any judgment more exactly, and distinguish these as belonging to the understanding from those relations

3.6 §18: What is Objective Unity of Self-Consciousness.

B139 (*ll.* 579–84): The transcendental unity of apperception is that unitary consciousness which integrates whatever manifold of sensed features may be presented in sensory intuition into a concept of the object so presented. Kant's phrase, '*vom Object*', may be more concise than we would wish, but it clearly contrasts to his previous locutions which expressly concern *concepts* of an 'object as such', to which no presented manifold of sensory intuition pertains. The conclusion of §17 expressly concerns constraints upon intuition and sensory manifolds required for anything 'to become an object for me'. The 'objectivity' of this unity of apperception is that it is required for objective reference or for objective reality (possible representation of particulars) or for objective validity (possibly justified representation of particulars); it is necessary, though not sufficient, for truth, accuracy or justifiedness. It is necessary so that any humanly possible thought *can* be object-directed or pertain to objects.

B140 (*ll.* 586–97): Kant here remarks, not upon time, but upon the form of any sensory intuition within time which contains some specific, *de facto*, 'given' sensory manifold, though considering these 'merely as intuition as such', and regardless of any particular manifold of sensation. This temporal form of *an* intuition only pertains to the original unity of apperception insofar as the manifold it contains can be integrally comprehended by someone (synthesised) who can think, 'I think ...' in connecting *that* sensory manifold to some putative object *so* presented (intuited), thought and (hence) conceived.

Note that the genitive preposition 'of' – as always in epistemology! – must be understood carefully to avoid a host of errors. A 'manifold of sensation' is not some batch of sensations; it is some plurality of sensed qualities, characteristics, features or aspects; it concerns contents conveyed in, through or by sensory processes and channels. Sensations as occurrences may be modifications of a subject's sensory receptivity, but the character or 'content' of such sensory modifications may be and often is indicative of something real as a (typical) occasioning cause or source of such type sensations; *cf.* B207 and below, §5.

3.7 §19: The Logical Form of all Judgments consists in the Objective Unity of the Concepts they Contain.

B141–2 (*ll.* 602–21): In contrast to the logician's account of judgment, and apart from any consideration of reproductive imagination (required to continue considering any sensed particular through any period of time), simply regarding the connection of any given cognitions within any judgment, *as* belonging to understanding, Kant finds that judgment *is* how those cognitions are brought to the objective unity of apperception. This connection is expressed by the affirmative copula 'IS', constitutive of any judgment one can make that any particular *is* as one now judges it to be. *That* is the 'objective' unity of apperception, in contrast to the

dungskraft (welches nur subjective Gültigkeit hat) unterscheide, so finde ich, daß ein Urtheil nichts andres sey, als die
610 Art, gegebene Erkenntnisse zur objectiven Einheit der Apperception zu bringen. Darauf zielt das Verhältnißwörtchen ist in [B142] denselben, um die objective Einheit gegebener Vorstellungen
615 von der subjectiven zu unterscheiden. Denn dieses bezeichnet die Beziehung derselben auf die ursprüngliche Apperception und die nothwendige Einheit derselben, wenn gleich das Urtheil selbst
620 empirisch, mithin zufällig ist, z.B. die Körper sind schwer. Damit ich zwar nicht sagen will, diese Vorstellungen gehören in der empirischen Anschauung
625 notwendig zu einander, sondern sie gehören vermöge der nothwendigen Einheit der Apperception in der Synthesis der Anschauungen zu einander, d.i. nach Principien der objectiven Bestimmung aller Vorstellungen, so fern
630 daraus Erkenntniß werden kann, welche Principien alle aus dem Grundsatz der transcendenten Einheit der Apperception abgeleitet sind. Dadurch allein wird aus diesem Verhältnisse ein Urtheil,
635 d.i. ein Verhältniß, das objectiv gültig ist und sich von dem Verhältnisse eben derselben Vorstellungen, worin bloß subjective Gültigkeit [B143] wäre, z. B. nach Gesetzen der Association, hinreichend unterscheidet. Nach den letzteren würde
640 ich nur sagen können: Wenn ich einen Körper trage, so fühle ich einen Druck

according to laws of reproductive imagination (which only have subjective validity), I then find that a judgment is nothing other than the way to bring given cognition to the objective unity of apperception. That's the point of the copula 'is' within judgments, to distinguish the objective unity of given representations from the subjective unity. For that [copula] indicates their connection to the original apperception and its necessary unity, even if the judgment itself is empirical, and so is contingent, e.g., bodies are heavy. By this I do not mean to say that these representations belong in that empirical intuition to each other necessarily; rather, due to the necessary unity of apperception in the synthesis of intuitions they belong to one another, i.e., according to principles of the objective determination of all representations, - so far as they can afford cognition, which principles all derive from the principle of the transcendental unity of apperception. Only in this way can this relation afford a *judgment*, i.e., a relation which is objectively valid, and which is sufficiently distinct to relations of even these same representations which would contain merely subjective validity, e.g., according to laws of association. According to these latter I could only say: If I carry a body, then I feel a pressure of

subjective unity, which concerns merely how something seems to one to be: objective unity is directed to and concerns *that object*, not merely how it may seem or appear to one to be. The objectivity here at issue is two-fold: That the cognitions (sensory or conceptual) integrated within an affirmative judgment *have* objective reality, in that they represent or can pertain to objects, *and* that in this judgment these cognitions have *this* objective reality, that they pertain to *this* presented, discriminated, identified particular one now judges. This (cognitively) necessary unity of apperception is entirely consistent with the logical contingency of any empirical judgment one makes (e.g., that bodies are heavy, or that this body is heavy).

B142 (ll. 621–35): Kant carefully distinguishes his intended modal claim from any modal claim about the representation of constituent aspects within any empirical (sensory) intuition (its 'manifold') belonging together necessarily. Kant's modal claim concerns the possibility of making any *judgment* about any sensed particular (ll. 634–5). Kant's claim is that these representations belong together necessarily as aspects (cognitions) integrated within a (prospective) judgment formed by someone thinking 'I think ...' about *this* sensed, intuited particular. Whatever contingencies (or *de res* necessities) may pertain to the existence or characteristics of some perceived particular, those modal issues are distinct to the cognitive modalities which pertain to apperceptively ascribing to *that* perceived particular some feature(s) or other(s).

B142 (ll. 636–40): Kant expressly indicates that the same plurality ('manifold') of representations within one and the same cognisant event or activity can have distinctive roles, depending upon the connections in which they are regarded, here: whether subjectively, as indicative of any subject's state of mind and whatever may appear to it *via* sensory perception, or instead objectively, as indicative of what that same subject thinks and judges about *that particular*, as having objective reference and as purporting to ascribe identified features to *that* particular. This is Kant's 'objective validity' (ll. 633–5), that a thought or judgment can (i) be directed to any particular object at all, and that it can (ii) be accurate, justified or justifiable. Kant's Deduction aims to demonstrate that our proper use of the categories is necessary to any such objective validity. This necessary unity of apperception by which in judgment one refers to what some sensed, perceived particular *is*, is distinctive even in regard to the very same component representations used in that same judgment, so far as these merely represent also how that perceived item seems or appears to one. This is how closely issues of objective validity can (and do) intersect issues of cognitive process, whilst nevertheless being distinctive in character. This also indicates Kant's reiterated concern to highlight how, in principle, empiricist accounts of psychological association cannot address issues of cognitive validity, because their modalities differ in kind, not in degree; issues of cognitive validity have an irreducible status, a 'dignity' (B124, l. 171, cf. B126, ll. 240–7). In the *Analytic of Principles* Kant argues that we can and do (insofar as any of us achieves apperception) competently identify at least some particulars we

der Schwere; aber nicht: er, der Körper,
ist schwer; welches so viel sagen will,
645 als, diese beide Vorstellungen sind im
Object, d. i. ohne Unterschied des Zu-
standes des Subjects, verbunden, und
nicht bloß in der Wahrnehmung (so oft
sie auch wiederholt seyn mag) beysam-
650 men.

§ 20. Alle sinnliche Anschauungen stehen
unter den Kategorien als Bedingun-
gen, unter denen allein das Mannig-
faltige derselben in ein Bewußtseyn
655 zusammenkommen kann.

Das mannigfaltige in einer sinnlichen
Anschauung Gegebene gehört nothwendig
unter die ursprüngliche synthetische
Einheit der Apperception, weil durch
660 diese die Einheit der Anschauung al-
lein möglich ist (§ 17). Diejenige Hand-
lung des Verstandes aber, durch die das
Mannigfaltige gegebener Vorstellungen
(sie mögen Anschauungen oder Begriffe
665 seyn) unter eine Apperception überhaupt
gebracht wird, ist die logische Function
der Urtheile (§ 19). Also ist alles Mannig-
faltige, so fern es in Einer empirischen
Anschauung gegeben ist, in Ansehung
670 einer der logischen Functionen zu ur-
theilen bestimmt, durch die es nämlich
zu einem Bewußtseyn überhaupt ge-
bracht wird. Nun sind aber die Cate-
gorien nichts andres als eben diese
675 Functionen zu urtheilen, so fern das
Mannigfaltige einer gegebenen Anschau-
ung in Ansehung ihrer bestimmt ist

weight; but not: it, the body, *is* heavy;
which purports to express that both
of these representations are bound
together in the object, *i.e.* regardless
of the state of the subject, and are
not merely present together in per-
ception (however often it may be re-
peated).

§ 20. All Sensory Intuitions stand un-
der the Categories as Conditions
under which alone their Mani-
fold can coalesce in one Con-
sciousness.

The manifold in anything given in a
sensory intuition necessarily belongs
under the original synthetic unity of
apperception, because only through
that [unity] is the *unity* of the intuition
possible (§ 17). However, that act of
the understanding by which the man-
ifold of given representations (whe-
ther intuitions or concepts) is
brought under an apperception as
such, is the logical function of judg-
ments (§ 19). Therefore, everything
manifold, so far as it is given in one
empirical intuition, is determined by
one of the logical functions of judg-
ment, by which function it can at all
be brought to one consciousness as
such. However, the *categories* are noth-
ing other than precisely these func-
tions of judgments, so far as the
manifold of a given intuition is de-
termined in their regard (§ 13).

sense, and distinguish them from our perceiving them, as we perceive them.

B142 (*ll.* 633–50): Kant expressly distinguishes the cognitive relations required for objective validity from merely psychological laws of association, which in principle can only afford subjective validity, *i.e.*, reports of how anything appears to one to be, which can never suffice for any affirmation that any sensed particular **IS** as one perceives and judges it to be.

3.8 §20: All sensory Intuitions stand under the Categories as Conditions under which alone their Manifold can coalesce in one Consciousness.

B143 (*ll.* 656–80): Kant expressly links together the implications of §§13, 17, 19. §17 concerns unity of, *i.e.*, *within*, sensory intuitions. Kant's concise discussion includes points about process – unity within sensory intuitions – and disregards his key point that apperception and its constraints govern any representations which can be something *for* oneself, by contributing to any of one's apperceptive episodes. (Kant's concern with what one *can* consider, judge or be aware of is reiterated at the start of §21.) The key points Kant highlights concern validity, specifically: conditions under which integrated cognitions can *have* objective reality (in the sense of being directed towards objects one can experience) and can *be* objectively valid insofar as these integrated cognitions are *now* realised (in Tetens' sense) in and by *this* particular one now judges to be such-and-so. Kant recalls from §17 that any sensory intuition which can be 'given' or presented to any humanly possible apperceptive 'I think' requires necessarily the synthetic unity which makes possible such apperception of any sensorily presented manifold. Such unification and identification requires exercise of our basic logical functions of judging (§19). Exercising these logical functions of judging requires that whatever is judged can be properly (if approximately) classified under at least some of our most basic categories (§13). Thus Kant's conclusion follows: Any (sensory or conceptual) manifold of which anyone (of us human beings) can *be* apperceptively aware necessarily conforms to (or accords with) the categories. This is a conditional necessity, and states a transcendental constraint upon the integratability of any sensory intuitions and of any conceptual classifications which can be judged to indicate features of any particular regarding which one *can* judge that *it* is such-and-so – however approximate or inaccurate one's judgment may be, and however logically or causally contingent may be the relation of the feature(s) ascribed to the particular which exhibits them.

(§ 13). Also steht auch das Mannigfaltige
in einer gegebenen Anschauung noth-
wendig unter Categorien. [B144]

§ 21. Anmerkung.

Ein Mannigfaltiges, das in einer An-
schauung, die ich die meinige nenne, ent-
halten ist, wird durch die Synthesis des
Verstandes als zur nothwendigen Einheit
des Selbstbewußtseyns gehörig vorge-
stellt, und dieses geschieht durch die
Categorie.*

* Der Beweisgrund beruht auf der vor-
gestellten Einheit der Anschauung, da-
durch ein Gegenstand gegeben wird,
welche jederzeit eine Synthesis des Man-
nigfaltigen zu einer Anschauung Gege-
benen in sich schließt, und schon die
Beziehung dieses letzteren auf Einheit
der Apperception enthält.

Diese zeigt also an: daß das empiri-
sche Bewußtseyn eines gegebenen Man-
nigfaltigen einer Anschauung eben so
wohl unter einem reinen Selbstbewußt-
seyn *a priori*, wie empirische Anschauung
unter einer reinen sinnlichen, die gleich-
falls *a priori* Statt hat, stehe. – Im obigen
Satze ist also der Anfang einer Deduc-
tion der reinen Verstandesbegriffe ge-
macht, in welcher ich, da die Categorien
unabhängig von Sinnlichkeit bloß im
Verstande entspringen, noch von der
Art, wie das Mannigfaltige zu einer em-
pirischen Anschauung gegeben werde,
abstrahiren muß, um nur auf die Einheit,
die in die Anschauung vermittelt der

Hence also the manifold in a given
intuition necessarily stands under
categories.

§ 21. Remark.

A manifold which is contained in
an intuition which I call my own, is
represented through the synthesis of
the understanding as belonging to the
necessary unity of self-consciousness,
and this transpires through the cate-
gory.*

* The ground of proof rests upon the
represented *unity* of the intuition
through which an object is given,
which always contains a synthesis of
the manifold of something given by
an intuition, and thus already con-
tains the connection of this latter to
the unity of apperception.

Thus this indicates that the empiri-
cal consciousness of a given manifold
of an intuition stands equally well
under one pure self-consciousness *a
priori*, as empirical intuition stands
under one pure sensible [conscious-
ness], which likewise holds *a priori*. –
In this proposition thus begins a *de-
duction* of the pure concepts of the
understanding, in which, because the
categories originate independently of
sensibility, merely in the understand-
ing, I must still abstract from the
manner in which the manifold to an
empirical intuition be given, in order
to attend solely to the unity provided

3.9 §21: Remark.

B144 (682–8): Kant states concisely his conclusion to §20, though indicating here that it per-
tains to those cognitions which one can call one's own, and more clearly indicating that the
relevant synthesis of the understanding – the conjoining effected or identified in any judging
of any manifold cognitions (whether concepts or sensory intuitions, including sensory pre-
sentations) – is required for including this complex cognition within the necessary unity of
self-consciousness. Kant's claims here include both the synthetic and the analytic unity of
apperception by adroitly not mentioning expressly this pair of unities.

B144 (ll. 689–96): Kant's (footnoted *) ground of proof for this conclusion stresses both the
unitary representation of some unified, hence integrated, sensory-intuitive manifold by
which any object can be presented (in sensation or sensory intuition), where this unitary
representation of that integral, complex object-presentation, *as* presented, is connected to
unitary apperception – where this unitary apperception must be synthetic, and can (also) be
analytic, expressed by the 'I think ...'.

B144 (ll. 697–703): Kant's conclusion thus shows that any (humanly possible) empirical con-
sciousness of any manifold presented within a sensory intuition is subject both to sensible
and to intellectual conditions *a priori*, thus achieving the intended parallelism of the two
Deductions, one of the concepts 'space' and 'time', the other of the categories.

B144 (ll. 703–6): This result marks the 'beginning' of Kant's Deduction of the categories,
which is expressly assigned to §26 (l. 714–25), as is also reflected in the title to §26, by appeal
to the result restated here from §20 (l. 719).

B144 (ll. 703–12): Kant's start on his Deduction indicates his key interest in this Deduction,
that use of categories is to be shown necessary for any unity contributed by understanding
within intuition. This may sound merely like comment about alleged process, but his express
contrast between the mere subjective validity of psychological laws of association, and the
conceptual, judgmental conditions which alone can provide for the possibility of objective
validity (at the end of §19; B142, ll. 634–50), suggest instead his concern with the conditions
required for any (putative) experiential judging which can *be* objectively valid.

715 Kategorie durch den Verstand hinzu-
kommt, zu sehen. In der Folge (§ 26)
wird aus der Art, wie in der Sinnlichkeit
die empirische Anschauung gegeben
wird, gezeigt [B145] werden, daß die Ein-
heit derselben keine andere sei, als wel-
che die Kategorie nach dem vorigen § 20
720 dem Mannigfaltigen einer gegebenen
Anschauung überhaupt vorschreibt, und
dadurch also, daß ihre Gültigkeit a priori
in Ansehung aller Gegenstände unserer
Sinne erklärt wird, die Absicht der De-
725 duction allererst völlig erreicht werden.
[...]

[...] die Kategorien [...] sind nur Regeln
für einen Verstand, dessen ganzes Ver-
mögen im Denken besteht, d.i. in der
730 Handlung, die Synthesis des Mannigfalti-
gen, welches ihm anderweitig in der An-
schauung gegeben worden, zur Einheit
der Apperception zu bringen, der also
für sich gar nichts erkennt, sondern nur
735 den Stoff zum Erkenntniß, die Anschau-
ung, die ihm durchs Object gegeben
werden muß, verbindet und ordnet. Von
der Eigenthümlichkeit unsers Verstandes
aber, nur vermitteltst der Kategorien und
740 [B146] nur gerade durch diese Art und
Zahl derselben Einheit der Apperception
a priori zu Stande zu bringen, läßt sich
eben so wenig ferner ein Grund ange-
ben, als warum wir gerade diese und kei-
745 ne andere Functionen zu Urtheilen ha-
ben, oder warum Zeit und Raum die ein-
zigen Formen unserer möglichen An-
schauung sind.

to the intuition by the category *via* the
understanding. In the sequel (§ 26)
shall be shown, by the manner in
which the empirical intuition is given
within sensibility, that its unity is
none other than that which the cate-
gory (according to the preceding, §
20) prescribes to the manifold of a
given intuition as such, and thus, in-
sofar as their *a priori* validity in regard
to all objects of our senses is thus
explicated, that the aim of the deduc-
tion is first fully achieved. (...)

(...) the categories are only rules for
an understanding, the entire capacity
of which consists in thinking, *i.e.*, in
the action of bringing the synthesis
of the manifold, which is otherwise
provided in intuition, to the unity of
apperception, which as such thus
knows nothing, but rather only com-
bines and orders the matter of cogni-
tion, intuition, which must be given
to it by the object. However, no fur-
ther reason can be provided for the
peculiarity of our understanding, that
only by the categories and only by
this kind and number of them it ef-
fects unity of apperception *a priori*,
than for why we have just these and
no other functions of judging, or why
time and space are the sole forms of
our possible intuition.

B145 (*ll.* 714–25): *If* the unity required for objectively valid (humanly possible) judgments can be shown to be exactly that form of unity afforded by use of the categories (*per* §20) in regard to sensory intuitions of particulars presented to us within sensation, so that such use of the categories holds valid of any and all objects we can sense (and identify ourselves as sensing), then the Deduction succeeds. Kant's remark here about the categories prescribing forms of unity to any given intuitions as such suggests the generative sense of 'constitution of objects' (above, §2.15), but this may merely be a suggestive connotation of Kant's concise expression. Kant's Deduction may succeed by demonstrating conditions which must be satisfied by any particulars we can be aware of *via* sensation; *i.e.*, Kant's locution concerning 'prescription' may only indicate that his Deduction does entail constraints upon those particulars of which we can be aware in sensory perception, though which constraints these are, and whether anything we do sense satisfies them, can remain issues for the Analytic of Principles.

B145–6 (*ll.* 727–48): Kant reiterates and elaborates his dual capacity account of human cognisance: understanding and sensibility, which each make their distinctive provisions, but which can only work together for any humanly possible apperceptive thought or experience. Kant's remarks all concern process (subjective deduction), and highlight that his Deduction appeals to some logically contingent premises. This entails that he must provide credible reasons to think these premises hold true of us *homo sapiens sapientes*. Kant does provide reasons for his premises, though not in this paragraph. By focussing on necessary *a priori* formal conditions for the possibility of human apperception, Kant avoids one hopeless conundrum of infallibilist global perceptual scepticism, which purports to require demonstrating our cognitive fitness for any logically possible environment, to prove we are cognitively fit for our actual spatio-temporal, perceptible natural environs. Kant's justification for his claims about our forms of judging and categories is in the first chapter of the Analytic of Concepts; see Wolff (2017) regarding formal aspects of judging. As for Kant's claim that we can only think and judge in connection with some manifold presented by sensibility (not understanding), Schelling tried to work out a purportedly human account of a productively intuitive understanding, *i.e.*, an understanding which creates its own (manifoldly characterised) object of knowledge. His attempt utterly fails to respond to Pyrrhonian scepticism, as Schulze (1803) made evident by strictly internal critique of Schelling's proclaimed 'intellectual intuition'.

§ 22. Die Kategorie hat keinen andern 750
Gebrauch zum Erkenntnis der
Dinge, als ihre Anwendung auf
Gegenstände der Erfahrung.

Sich einen Gegenstand denken und
einen Gegenstand erkennen, ist also
755 nicht einerlei. Zum Erkenntnis gehö-
ren nämlich zwei Stücke: erstlich der
Begriff, dadurch überhaupt ein Gegen-
stand gedacht wird (die Kategorie), und
zweitens die Anschauung, dadurch er
760 gegeben wird; denn könnte dem Begriffe
eine correspondirende Anschauung gar
nicht gegeben werden, so wäre er ein
Gedanke der Form nach, aber ohne allen
Gegenstand und durch ihn gar keine Er-
765 kenntniß von irgend einem Dinge mög-
lich, weil es, so viel ich wüßte, nichts
gäbe, noch geben könnte, worauf mein
Gedanke angewandt werden könne. Nun
ist alle uns mögliche Anschauung sinn-
770 lich (Ästhetik), also kann das Denken
eines Gegenstandes überhaupt durch
einen reinen Verstandesbegriff bey uns
nur Erkenntniß werden, so fern dieser
auf Gegenstände der Sinne bezogen
775 wird. Sinnliche [B147] Anschauung ist
entweder reine Anschauung (Raum und
Zeit) oder empirische Anschauung desje-
nigen, was im Raum und der Zeit un-
mittelbar als wirklich, durch Empfin-
780 dung, vorgestellt wird. Durch Bestim-
mung der ersteren können wir Erkennt-
nisse a priori von Gegenständen (in der
Mathematik) bekommen, aber nur ihrer
Form nach als Erscheinungen; ob es

§ 22. The Category has no other Use
for Cognition of Things than its
Application to Objects of Ex-
perience.

To think an object, and to know an
object, are thus not one and the
same. Namely, to cognition belong
two factors: first, the concept by
which an object is at all thought (the
category), and second, the intuition
through which that object is given;
for if to the concept no correspond-
ing intuition could be given, that con-
cept would be a thought only for-
mally, though without any object, so
that through it altogether no cogni-
tion of any thing whatever would be
possible, because so far as I would
know, nothing would be given, nor
could be given, to which my thought
could be applied. Now, all intuition
possible for us is sensible (Aesthetic);
therefore the thinking of an object as
such by a pure concept of the under-
standing can for us only become a
cognition in so far as this category is
connected to objects of the senses.
Sensible intuition is either pure intu-
ition (space and time) or empirical
intuition of whatever is represented
immediately by sensation within
space and time as actual. By deter-
mining the former, we can obtain *a*
priori cognitions of objects (in mathe-
matics), but only according to their
form as appearances; whether things

3.10 §22: The Category has no other Use for Cognition of Things than their Application to Objects of Experience.

B146 (ll. 753–68): Kant contrasts thought or thinking as such to cognition, here as successful knowing of some particular object (*Gegenstand*), by stressing that any such knowing requires both using some (perhaps more than one) category and also some sensory intuition(s) by which that object be ‘given’ or presented to us. Note how Kant stresses that thought as such cannot specify whether any such object exists. This shows that Kant distinguishes between conceptual intension and any indicative (deictic) reference which can contribute to knowing; both are required for any, even putative knowing (*i.e.*, both are necessary also to misattribution). Once both factors are acknowledged requirements for any successful knowing, the prospect of ‘ambiguous descriptions’ which may hold of indefinitely many particulars is shown to be irrelevant to epistemology, because only *indicated* particulars are candidates for human (perceptual) knowing. Issues of (logically, *i.e.*, numerically) ‘ambiguous descriptions’ arise by presuming meaning or intension can fill a role it does not and cannot. That is the defect, in principle, of ‘descriptions theories of reference’ and of Russell’s ‘knowledge [solely] by description’, which persists through Quine’s attempts to banish singular referring phrases.

B146 (ll. 768–75): Kant appeals to his finding in the Tr. Aesth., that human beings can only have sensory intuition; *i.e.*, particulars can only be presented or ‘given’ to us by sensory channels. Consequently any thought of any object as such can only contribute to knowledge insofar as this thought is connected to (*i.e.*, used in connection with) some object we sense.

B146–7 (ll. 775–97): Kant remarks on his account of mathematics, which concerns constructing *forms* (arithmetical or geometrical forms) within our pure *a priori* formal intuitions of space and of time. Such mathematical constructions do not suffice to prove that they have any actual instances amongst spatio-temporal particulars.

B147 (ll. 777–80): Important to Kant’s account of empirical knowledge is the second kind of sensory intuition(s), namely: empirical intuition(s) of whatever is presented within space and time by sensation *as actual*. This point Kant picks up directly following his remarks on space, time and mathematics.

785 Dinge geben könne, die in dieser Form
angeschaut werden müssen, bleibt doch
dabey noch unausgemacht. Folglich sind
alle mathematische Begriffe für sich
nicht Erkenntnisse, außer so fern man
790 voraussetzt, daß es Dinge giebt, die sich
nur der Form jener reinen sinnlichen
Anschauung gemäß uns darstellen laßen.
Dinge im Raum und der Zeit wer-
den aber nur gegeben, so fern sie Wahr-
nehmungen (mit Empfindung begleitete
795 Vorstellungen) sind, mithin durch
empirische Vorstellung. Folglich ver-
schaffen die reinen Verstandesbegriffe,
selbst wenn sie auf Anschauungen a prio-
800 ri (wie in der Mathematik) angewandt
werden, nur so fern Erkenntniß, als die-
se, mithin auch die Verstandesbegriffe
vermittelt ihrer auf empirische An-
schauungen angewandt werden können.
805 Folglich liefern uns die Categorien ver-
mittelt der Anschauung auch keine Er-
kenntniß von Dingen, als nur durch ihre
mögliche Anwendung auf empirische
Anschauung, d.i. sie dienen nur zur
810 Möglichkeit empirischer Erkennt-
niß. Diese aber heißt Erfahrung. Folg-
lich haben die Categorien keinen ande-
ren Gebrauch zum Erkenntnisse der
Dinge, als nur [B148] so fern diese als
815 Gegenstände möglicher Erfah-
rung angenommen werden.

could be given which must be intu-
ited in such a form, thus remains of
course still undetermined. Conse-
quently all mathematical concepts as
such are not cognitions, except inso-
far as one presupposes that there be
such things which can only be pre-
sented to us in accord with those
forms. However, *things in space* and
time are only given insofar as they are
perceptions (representations accom-
panied by sensation), hence through
empirical representation. Conse-
quently, the pure concepts of the
understanding, even if they are ap-
plied to *a priori* intuitions (as in math-
ematics), only afford cognition inso-
far as these [mathematical applica-
tions], hence by that mediation also
the concepts of the understanding,
can be applied to empirical intuitions.
Consequently also the categories pro-
vide us no cognition of things, except
solely through their possible applica-
tion to empirical *intuition*, *i.e.*, they
only serve the possibility of *empirical
cognition*. However, this is called expe-
rience. Hence the categories have no
other use for cognition of things,
except insofar as these are assumed
to be *objects of possible experience*.

B147 (*ll.* 793–7): Kant remarks that *things* (here: *Dinge*) *within space and time* are only given (pre-
sented) to us insofar as they are perceived, hence insofar as they are (re)presented in con-
junction with sensation(s) by specifically *empirical* representations (in contrast to pure *a priori*
representations, whether thoughts or formal intuitions = space, time as such).

B147 (797–805): Kant completes his remark on the use of mathematical constructions in
actual empirical knowledge as expected, that any categories used in connection with those
constructions, and also these constructions themselves, only afford *empirical* knowledge inso-
far as they can be applied to empirical intuitions of actual, localised, deictically demonstrated
(indicated) spatio-temporal particulars (*ll.* 801–4).

B147 (*ll.* 805–11): Kant now expressly draws the conclusion that the categories can provide
knowledge only by their possible application(s) to empirical intuition; so that they only serve
the possibility of *empirical knowing* – whether mathematicised or (merely) classificatory, which
may include classifying relations, such as causal relations or natural kinds. If Modern readers
find Kant’s argument needlessly explicit, it is because we have long ago given up on *a priori*
metaphysics. Or have we? Contemporary ‘modal metaphysics’ such as David Lewis’ possible
worlds are at most explications of various *intensions*, that is, explications of the contents and
logical implications of concepts. These do not automatically provide any ontology, no
metaphysics, no *models*; only partial descriptions without reference to any identifiable partic-
ulars instantiating them; all these possible instances are mere suppositions.

B147 (*ll.* 805–14): Kant (here) equates empirical knowledge with experience. One may demur
at this equation, as much of human experience may involve partial ignorance, conjecture,
expectation, action, inquiry and even discovery. However, Kant’s point here concern *catego-
ries* and their possible legitimate (valid) roles in human knowledge. For this purpose, Kant’s
equation of human experience with knowledge is harmless; his key point stands: We can
only use the categories in genuine, legitimate, valid (accurate, justified) knowledge insofar as
this (prospective, possible) knowledge is *experiential*, or empirical knowledge.

B147–8 (*ll.* 811–6): Kant provisionally draws his key conclusion: Our sole humanly possible
use of the categories for knowing things (*Dinge*) is in ascriptive reference to things *as* objects
(*Gegenstände*) of possible experience. Kant’s conclusion is provisional insofar as this §22 is
preliminary, preparing for §26, and insofar as his next untitled § explicates the philosophical
importance of this preliminary conclusion.

§ 23. [Ohne Überschrift]

Der obige Satz ist von der größten Wichtigkeit; denn er bestimmt ebenso
820 wohl die Grenzen des Gebrauchs der reinen Verstandesbegriffe in Ansehung der Gegenstände, als die transscendentale Ästhetik die Grenzen des Gebrauchs der reinen Form unserer sinnlichen Anschauung bestimmte. Raum und Zeit
825 gelten als Bedingungen der Möglichkeit, wie uns Gegenstände gegeben werden können, nicht weiter als für Gegenstände der Sinne, mithin nur der Erfahrung. Über diese Grenzen hinaus stellen sie
830 gar nichts vor; denn sie sind nur in den Sinnen und haben außer ihnen keine Wirklichkeit. Die reinen Verstandesbegriffe sind von dieser Einschränkung frei und erstrecken sich auf Gegenstände der
835 Anschauung überhaupt, sie mag der unsrigen ähnlich seyn oder nicht, wenn sie nur sinnlich und nicht intellectuell ist. Diese weitere Ausdehnung der Begriffe,
840 über unsere sinnliche Anschauung hinaus, hilft uns aber zu nichts. Denn es sind alsdann leere Begriffe von Objecten, von denen, ob sie nur einmal möglich sind oder nicht, wir durch jene gar
845 nicht urtheilen können, bloße Gedankenformen ohne objective Realität, weil wir keine Anschauung zur Hand haben, auf welche die synthetische Einheit der Apperception, die jene allein enthalten,
850 angewandt werden, und sie so einen Gegenstand bestimmen [B149] könnten. Unsere sinnliche und empirische An-

§ 23. [untitled]

The above proposition is of utmost importance; for it equally well determines the limits of the use of the pure concepts of the understanding in regard to objects, as [in their regard] the Aesthetic determined the limits of the use of the pure form of our sensible intuition. Space and time count as conditions of the possibility of how objects can be given us, no further than as objects of the senses, hence of experience. Beyond these limits they represent nothing at all; for they are only in the senses and otherwise have no actuality. The pure concepts of the understanding are free of this restriction, and extend to objects of intuition as such, regardless of whether it be like ours, if only it be sensible and not intellectual. This further extension of concepts beyond *our* sensible intuition, however, helps us not at all. For they are then empty concepts of objects, regarding which [objects], whether they even be possible or not, we cannot at all judge by those concepts, which are [in this case] mere forms of thought lacking objective reality, because we have at hand no intuition to which the synthetic unity of apperception, which contains only those concepts, can be applied, so that they could determine (specify) any object. Only *our* sensible and empirical intuition

3.11 §23: [untitled]

B148 (*ll.* 818–25): Kant’s provisional conclusion is ‘of the highest importance’, because it specifies (*bestimmt*) the limits of our possible valid use of categories in regard to objects, exactly as the Tr. Aesth. specifies the limits of the use of the pure form of our sensory intuition (receptivity). Here is an instance of Kant’s chronic fluidity regarding human sensibility. He has the resources to make important, specific distinctions, and often does so, yet he also often conflates the following. Taking ‘FORM’ as any condition which allows items to be ordered, and ‘MATTER’ as whatever is conditioned by a form, so that it can be ordered, Kant distinguishes two senses of ‘form of intuition’, also ‘formal intuition’ and two senses of ‘form of sensibility’:

Form of Intuition: (*a*) a ‘form of intuiting’: a formal feature of some mode of intuiting; (*b*) a ‘form of an intuited’: a formal feature of something so intuited.

Formal Intuition: a sensible intuition, the character of which depends solely upon the form of the mode of intuiting, and not upon particular objects given within that form of intuiting.

Form of Sensibility: (*i*) a ‘form of receptivity’, or a form of sensibly intuiting; (*ii*) a form of particulars *qua* sensibly intuited. (Allison 1983, 6–7, 96–7; Paton 1936, 1:101ff.)

The parallel Kant requires between the Deduction of the Categories and that regarding space and time concerns the *a priori* concepts ‘space’ and ‘time’, which likewise can only be used by us legitimately in connection with localising sensed particulars by delimiting (if approximately) the regions they occupy during those periods of time in which we perceive (or measure) them.

Kant here states that space and time (as such) only pertain to objects we can sense, because they *are* (nothing but) conditions of our possibly being presented with particulars we can sense. That is Kant’s transcendental idealism. Even setting that aside, Kant’s subordinate claims hold: We can only sense spatio-temporal particulars, and we can only use the *a priori* concepts ‘space’ and ‘time’ in (referential) connection to sensed particulars. Only in connection with particulars sensed within space and time can we specify any actuality (*ll.* 832–3), whether of particulars themselves, or of spatial or temporal features or structures.

B148 (*ll.* 833–8): Kant contrasts the categories to (the concepts of) space and time, indicating that, at least in principle, our categories can hold for *any* kind of form of sensory intuiting, *i.e.*, for any way in which particulars may be made available by sensing to a judging intellect (understanding). This expansive scope (*erstrecken*, *l.* 835) is a function of their conceptual content or intension (only).

B148–9 (*ll.* 839–54): Kant underscores his anti-rationalist point that, although the (semantic) scope or intension of the categories is much greater than the domain of possible objects of

schauung kann ihnen allein Sinn und Bedeutung verschaffen.

855 Nimmt man also ein Object einer nicht-sinnlichen Anschauung als gegeben an, so kann man es freilich durch alle die Prädicate vorstellen, die schon in der Voraussetzung liegen, daß ihm nichts
860 zur sinnlichen Anschauung Gehöriges zukomme: also, daß es nicht ausgedehnt, oder im Raume sei, daß die Dauer desselben keine Zeit sei, daß in ihm keine Veränderung (Folge der Bestimmungen in der Zeit) angetroffen werde, usw. Allein das ist doch kein eigentliches Erkenntnis, wenn ich bloß anzeige, wie die Anschauung des Objects nicht sei, ohne sagen zu können, was
870 in ihr denn enthalten sei; denn alsdenn habe ich gar nicht die Möglichkeit eines Objects zu meinem reinen Verstandesbegriff vorgestellt, weil ich keine Anschauung habe geben können, die ihm
875 korrespondierte, sondern nur sagen konnte, daß die unsrige nicht für ihn gelte. Aber das Vornehmste ist hier, daß auf ein solches Etwas auch nicht einmal eine einzige Kategorie angewandt werden
880 könnte: z.B. der Begriff einer Substanz, d. i. von Etwas, das als Subject, niemals aber als bloßes Prädicat existieren könne, wovon ich gar nicht weiß, ob es irgend ein Ding geben könne, das dieser Gedankenbestimmung korrespondierete, wenn nicht empirische Anschauung mir den Fall der Anwendung gäbe. Doch mehr hievon in der Folge. [B150]

can provide [those concepts] sense and significance.

Thus if one assumes an object of a non-sensible intuition to be given, one can admittedly represent by all those predicates already involved in the assumption, *i.e.* that *nothing belonging to sensible intuition* pertains to it: hence it is not extended or located in space, that its duration would not be any time, that within it no alteration (succession of determinations in time) is to be found, *etc.* However, that is no proper cognition, if I merely indicate how the intuition of the object *is not*, without being able to say anything about what then that intuition may contain; for in this case I have not at all represented the possibility of *an object* for my pure concept of the understanding, because I have not been able to assign any intuition which would correspond to it; I could only say that in its regard our intuition is invalid. Above all however the key point here is that, to such a something not a single category could be applied: *e.g.*, the concept of a substance, *i.e.*, of something which could exist only as subject, but never as a mere predicate; of which I cannot at all know, whether any such thing could be given corresponding to this merely conceptual specification, if empirical intuition gives me no case to which to apply [these con-

sensory intuition (sensory presentation) of particulars, this extra scope is to us cognitively useless, precisely because we cannot identify any non-spatio-temporal particulars to which this extra scope or intension can possibly pertain, in any specifiable, cognitively valid way. We can only use categories in knowledge by subsuming particulars under concepts within (prospective, candidate) cognitive judgments. Subsumable particulars can only be presented to us in and through sensory intuition; we can only localise and identify particulars as candidate subjects of our cognitive judgment(s) within sensory experience, which is spatio-temporal. This is fundamental to the cognitive structure of the human condition. (This point holds independently of transcendental idealism, and of (non-)Euclidean spaces; see §4.)

B149 (*ll.* 852–4): Our categories can only be provided sense and significance by *our* sensory and empirical intuition(s). These key terms were made famous (to Anglophones) by Frege: sense and meaning or reference. Kant's explication of our concepts and their possibly valid cognitive use does make Frege's points (so far as these pertain to empirical knowledge), yet more emphatically in the Schematism: Only as connected or referred to sensed objects do concepts have *Bedeutung* (B185–7). The specific 'sense and significance' which must be supplied to the categories is their more specific *intension* by which alone they *can* pertain to features of particulars localised and discriminated within space and time. (This is the topic of the Schematism.) The specific, fully-fledged *cognitive* 'sense and significance' of the categories required for empirical knowledge is supplied to the (schematised) categories by referring them to spatio-temporally localised particulars we discriminate and identify within (spatio-temporal) experience; this is the topic of Kant's 'System of Principles', both topics belong to Kant's 'Analytic of Principles'. My disambiguation of Kant's distinctions regarding space, time and forms of intuiting may suggest that the *concepts* 'space' and 'time' might then also have a broader scope (or a less specific intension) than required for using these *a priori* concepts (only) in connection with our human forms of sensory receptivity. This is correct, yet cognitively useless to us (with regard to particulars) for the same reasons as the broader scope, *i.e.* less specific intension, of any of the categories (see §4). Kant suggests (just below) he agrees, at least regarding the concept 'time': If we assume (for the sake of discussion) an object of non-sensory intuition, it may perhaps have 'a duration which would not be time' (B149, *ll.* 862–3).

B149–50 (*ll.* 855–88): Kant expressly indicates his proscription of the cognitive use of indirect proof (disjunctive syllogism plus negation elimination) in any cases in which we cannot indicate – localise, ostend, demonstrate indexically – the relevant particular(s), because in such cases we cannot *realise* the concepts involved in our putative cognition (in Teten's sense) by indicating demonstratively, deictically, that there is any such object. Though this proscription is central to Kant's Transcendental Dialectic, it is not restricted to such transcendent or meta-

cepts]. More on this of course in the sequel.

§ 24. Von der Anwendung der Catego-890
rien auf Gegenstände der Sinne
überhaupt.

Die reinen Verstandesbegriffe bezie-
hen sich durch den bloßen Verstand auf
Gegenstände der Anschauung über-
haupt, unbestimmt ob sie die unsrige
905 oder irgend eine andere, doch sinnliche
sei, sind aber eben darum bloße Ge-
dankenformen, wodurch noch kein
bestimmter Gegenstand erkannt wird.
900 Die Synthesis oder Verbindung des
Mannigfaltigen in denselben bezog sich
bloß auf die Einheit der Apperception
und war dadurch der Grund der Mög-
lichkeit der Erkenntniß *a priori*, so fern
905 sie auf dem Verstande beruht, und mit-
hin nicht allein transscendental, sondern
auch bloß rein intellectual. Weil in uns
aber eine gewisse Form der sinnlichen
Anschauung *a priori* zum Grunde liegt,
910 welche auf der Receptivität der Vorstel-
lungsfähigkeit (Sinnlichkeit) beruht, so
kann der Verstand als Spontaneität den
inneren Sinn durch das Mannigfaltige
gegebener Vorstellungen der syntheti-
915 schen Einheit der Apperception gemäß
bestimmen und so synthetische Einheit
der Apperception des Mannigfaltigen der
sinnlichen Anschauung *a priori* denken,
als die Bedingung, unter welcher alle Ge-
920 genstände unserer (der menschlichen)

§ 24. Of the Application of the Cate-
gories to Objects of the Senses
as such.

The pure concepts of the under-
standing connect by mere under-
standing to objects of intuition as
such, regardless of whether it be ours
or another kind, provided only that it
be sensible; yet they are, for that very
reason, mere *thought-forms*, through
which no determinate object yet be
cognised. Synthesis or connection of
the manifold within [those thought-
forms] was connected only to the
unity of apperception and was thus
the *a priori* ground of the possibility
of cognition, so far as this [possibil-
ity] is based upon the understanding,
and so is not only transcendental, but
also utterly, purely intellectual. How-
ever, because within us a specific
form of sensible intuition *a priori* is
fundamental, which rests upon the
receptivity of the capability of repre-
sentations (sensibility), the under-
standing as spontaneity can thus de-
termine the inner sense through the
manifold of given representations in
accord with the synthetic unity of
apperception, and so can think *a priori*
synthetic unity of apperception of the
manifold of sensible intuition as the

physical contexts, as his principal discussion of this point in the Doctrine of Method (B817–22) makes plain. This, too, apparently belongs to Kant’s shrewd explication of the epistemological significance of the existential presuppositions of Aristotelian syllogistic.

3.12 §24: Of the Application of the Categories to Objects of the Senses as such.

B150 (ll. 892–9): Kant’s title to §24 and opening statement recount his painstaking conclusion from §23, yet §24 is not redundant! Kant again states that through use by the understanding in judging, categories connect to objects presented by intuition as such, regardless of the kind of intuition involved, provided only that it be sensible intuition (ll. 892–9). (This point supports my suggestion that Kant’s Deduction is neutral with regard to his transcendental idealist account of space and time = forms of human sensory intuition; regardless, only by *sensory* intuition of particulars which *can* stimulate sensations in us can any particulars be presented or ‘given’ to us.) Kant’s statement about the use and reference (connection) of concepts to objects of intuition as such highlights that the categories as such are mere forms of thought, which do not suffice to know any specific (determinate) object (ll. 897–9).

B150 (ll. 900–7): Kant now focuses on that kind of conjoining or ‘synthesis’ of a manifold (a plurality) within these forms of thought, *i.e.*, of categories (or indeed other concepts) used in judging, connects (or relates, refers) solely to the unity of apperception. To anticipate, Kant here turns the focus of the Deduction ‘upward’ to the intellectual conditions necessary for any humanly possible unified apperception. Due to this connection (to unitary apperception), the conjoining effected by using categories (in judging) grounds *a priori* the possibility of knowledge, *insofar as* this possibility is based upon understanding. Because this ground of apperception is entirely conceptual and judgmental, it is altogether purely intellectual (as well as transcendental).

B150–1 (ll. 907–26): Kant contrasts the understanding to our human form of sensory intuiting. He states that a specific form of sensory intuition is *a priori* fundamental to our human cognisance, a form of sensory intuition based upon our sensory receptivity to representations (our sensibility). (All of this characterisation of our sensibility can be accommodated by my alternative, minimal claim about our sensory receptivity.) Kant’s point is that, in contrast to sensory receptivity, our understanding is active or ‘spontaneous’, and can determine our inner sense through a manifold (or plurality) of given representations *in accord with* the synthetic unity of apperception. In this regard, understanding can *a priori* think (judge, conceive, comprehend) a *synthetic* unity of apperception of any manifold within sensory intuition, and can do so as the (intellectual) condition under which all objects of human intuition must necessarily stand, *so that* the categories as mere forms of thought obtain or achieve *objective reality*, by being applied to objects given us within (sensory) intuition. (Note that the intellec-

Anschauung nothwendiger Weise stehen müssen, dadurch denn die Categorien als bloße Gedankenformen objective Realität, d.i. Anwendung auf Gegenstände, 925 [B151] die uns in der Anschauung gegeben werden können, aber nur als Erscheinungen bekommen; denn nur von diesen sind wir der Anschauung a priori fähig.

930 Diese Synthesis des Mannigfaltigen der sinnlichen Anschauung, die a priori möglich und nothwendig ist, kann figürlich (*synthesis speciosa*) genannt werden zum Unterschiede von derjenigen, welche in Ansehung des Mannigfaltigen einer Anschauung überhaupt in der bloßen Categorie gedacht würde und Verstandesverbindung (*synthesis intellectualis*) heißt; beyde sind transcendentale, nicht bloß weil sie selbst a priori vorgehen, sondern auch die Möglichkeit anderer Erkenntniß a priori gründen.

Allein die figürliche Synthesis, wenn sie bloß auf die ursprünglich-synthetische Einheit der Apperception, d.i. diese transcendentale Einheit, geht, welche in den Categorien gedacht wird, muß zum Unterschiede von der bloß intellectuellen Verbindung die transcendentale Synthesis der Einbildungskraft heißen. Einbildungskraft ist das Vermögen, einen Gegenstand auch ohne dessen Gegenwart in der Anschauung vorzustellen. Da nun alle unsere Anschauung sinnlich ist, so gehört die Einbildungskraft der subjectiven Bedingung wegen, unter der

condition under which all objects of our (human) intuition must necessarily stand, so that the categories as mere forms of thought can thus obtain objective reality, *i.e.* application to objects which can be given us in intuition, although only as appearances, for only of these are we capable *a priori* to intuit.

This *synthesis* of the manifold of sensible intuition which is *a priori* possible and necessary, can be called *figurative (synthesis speciosa)* to distinguish it from that synthesis which in regard to the manifold of an intuition as such would be thought within the mere category and is called intellectual connection (*synthesis intellectualis*); both are *transcendental*, not merely because they each proceed *a priori*, but also because they ground the possibility of other cognitions *a priori*.

However, figurative synthesis, merely in regard to the original synthetic unity of apperception, *i.e.*, this transcendental unity which is thought in the categories, must, in contradistinction to the merely intellectual conjunction, be called the transcendental synthesis of the power of imagination. The *power of imagination* is the capacity to represent an object in intuition even without its presence. Now as all of our intuition is sensible, the power of imagination, due to the subjective conditions under

tual integration of distinct concepts within judging may suffice for Kant's key claim, that the analytic unity of apperception can only occur in necessary conjunction with some synthetic unity of apperception, *i.e.*, with such an integration of distinct concepts in judging, where these concepts are more than mere thought-forms only when used to identify, differentiate *and* integrate sensed features of particulars presented to us *via* sensory intuition. If this is correct, Kant's Deduction holds independently of his transcendental idealism.)

B151 (*ll.* 926–9): Understandably, Kant recalls his transcendental idealist qualifier, that objects are given to us within (sensory) intuition only as appearances. That doctrine Kant believes is demonstrated in the Tr. Aesth.. That doctrine and its qualifier, however, are not required or justified by anything Kant demonstrates (so far) in the Deduction.

B151 (*ll.* 930–42): Kant now expressly distinguishes two different kinds or domains of synthetic integration (unification, conjoining) of manifolds: one within sensibility, the other within intellect. Both are guided by the same formal aspects of judging and by the same categories, yet one concerns sensory integration (binding) required merely to perceive sensed objects; the other concerns judgmental differentiation, classification and integration within judgments, by which we can apperceive anything we perceive, and so *can* know it empirically. My comments above (B150, *ll.* 900–7) capitalised upon Kant's own indication of the 'purely intellectual' conjunction effected by judging. Kant's transition here to considering sub-personal sensory integration or synthesis is an expository, not an inferential, transition. This sub-personal sensory integration Kant calls figurative synthesis (*l.* 930–4) or *synthesis speciosa* (*l.* 934) primarily concerns process (the subjective deduction), yet Kant stresses that, like intellectual judgment, sensory integration too is grounded and guided by *a priori* conditions, from which the possibility of further *a priori* knowledge follows. Hence both kinds or domains of synthesis can afford transcendental knowledge properly speaking (Tr. Aesth. §3, B40). (For discussion of Kant's account of figurative synthesis, see Longuenesse (1998), 202–29, 240–7; Kant's functionalist cognitive architecture, most of which is sub-personal, is charted in *KCE*, §43.)

B151 (*ll.* 943–61): Kant further characterises figurative synthesis, but now expressly calls it transcendental synthesis of the power of imagination (*ll.* 949–50, *cf.* *ll.* 966–71). Because Kant's remarks primarily concern cognitive process, and so belong to his subjective deduction, I forego detailed comment. The transcendental point of Kant's discussion of figurative synthesis effected by transcendental power of imagination (sub-personally) is that some such integration of sensory intake over time and through space is required for us at all to *perceive* our surroundings, without which we could never (self-consciously) apperceive our surroundings, much less ever think to ourselves 'I think ...' *that* particular over there is now such-and-so. Kant's concern with synthesis appears much earlier in *KdrV* (A77–8/B103); recall Kant's comment: 'Syn-

sie allein den Verstandesbegriffen eine correspondirende Anschauung geben kann, zur Sinnlichkeit; so fern aber doch ihre Synthesis eine Ausübung der Spontaneität ist, welche bestimmend und nicht wie der Sinn [B152] bloß bestimmbar ist, mithin a priori den Sinn seiner Form nach der Einheit der Apperception gemäß bestimmen kann, so ist die Einbildungskraft so fern ein Vermögen, die Sinnlichkeit a priori zu bestimmen, und ihre Synthesis der Anschauungen, den Categorien gemäß, muß die transcendente Synthesis der Einbildungskraft seyn, welches eine Wirkung des Verstandes auf die Sinnlichkeit und die erste Anwendung desselben (zugleich der Grund aller übrigen) auf Gegenstände der uns möglichen Anschauung ist. Sie ist als figürlich von der intellectuellen Synthesis ohne alle Einbildungskraft, bloß durch den Verstand, unterschieden. So fern die Einbildungskraft nun Spontaneität ist, nenne ich sie auch bisweilen die productive Einbildungskraft und unterscheide sie dadurch von der reproductiven, deren Synthesis lediglich empirischen Gesetzen, nämlich denen der Association, unterworfen ist, und welche daher zur Erklärung der Möglichkeit der Erkenntniß a priori nichts beyträgt und um deswillen nicht in die Transscendentalphilosophie, sondern in die Psychologie gehört. [...] [B158]

which alone it can provide an intuition corresponding to the concepts of the understanding, thus belongs to sensibility; however, insofar as its synthesis is of course an exercise of spontaneity which is determining and not like the senses merely determinable, hence can determine *a priori* the senses according to its form in accord with the unity of apperception, the power of imagination is thus in that regard a capacity to determine sensibility *a priori*, and its synthesis of intuition in accord with the categories must be the transcendental synthesis of the power of imagination, which is an effect of the understanding upon sensibility and its first application (and equally the ground of all further applications) to objects of our possible intuition. As figurative it is distinct to that intellectual synthesis without the power of imagination merely through the understanding. Now insofar as the power of imagination is spontaneity, occasionally I call it productive imagination and thus distinguish it from the reproductively, the synthesis of which is subject to merely empirical laws, namely those of association, and which thus contributes nothing to the explication of the possibility of cognition *a priori* and so belongs not to transcendental philosophy but rather to psychology..]

thesis as such, as we shall see presently, is the mere effect of imagination, a blind yet indispensable function of the soul, without which we would have altogether no knowledge; [yet] to bring this synthesis to *concepts* is a function exercised by understanding, by which understanding first provides us knowledge in the proper sense of the term' (A77/B103). Kant's doubled roles for category-guided forms of synthesis is first stated at A79/B104–5.

B151 (ll. 954–9): Kant here assigns power of imagination to sensibility, and stresses that transcendental power of imagination and its figurative (sensory-perceptual) synthesis is required for the concepts of the understanding (*i.e.*, the categories) ever to have 'a corresponding intuition', *i.e.*, a sensory presentation of any particular properly classified or characterised by any category (or any specification of a category) used as a predicate in (even a candidate) cognitive judgment. Hence this sub-personal sensory-perceptual integration is crucial to any human thought ever being *about* any sensed particulars = anything other than ourselves, within our surroundings, of which we ever *can* be aware, whether merely perceptually or also apperceptively. This entire discussion of transcendental imagination concerns process and belongs to Kant's subjective deduction, yet Kant uses it here also to highlight issues about the very possibility of object-directed human sensory perception, apperception and thought; *i.e.*, the very possibilities for us of 'objective reality' (= intentionality *qua* object-directedness, or the constitution of objects *as* objects of attention or thought) and of 'objective validity' (= accuracy, truth, justifiedness or justification).

B151–2 (ll. 959–72): Kant indicates, without here explaining, a cognitively much more significant, much more active and productive role of imagination (or figurative synthesis), described as an 'exercise of spontaneity' and as 'determining' or 'specifying', hence not merely receptive, being determined or specified, nor merely reproducing or retaining in present attention immediately passed sensory-perceptual states. This active role can specify the form of sense (or sensibility in sensing) *a priori* in accord with the unity of apperception. This portentous claim can be understood to indicate this *a priori* role does not merely respond to sensory intake (*cf.* ll. 979–87); it is an active responding to continuing sensory intake (sensory binding). I surmise: This role is explicated in the *Analytic of Principles* as the anticipatory character of sensory perception, by which we identify and discriminate particulars within our sensory experience in part by anticipating what are *their* structures and features, such that our continuing perception of them is likely to exhibit some (causally possible) set(s) of characteristics rather than others (in contrast to those characteristics of our continuing perception of them which are instead due to our own bodily, perceptual-motor activity). This conjecture accords with *KCE* Ch. 8; Kant's discussion here is explicatory, not argumentative (not justificatory).

§ 25. [Ohne Überschrift]
 [...] So wie zum Erkenntnis eines von
 mir verschiedenen Objects außer dem
 995 Denken eines Objects überhaupt (in der
 Kategorie) ich doch noch einer An-
 schauung bedarf, dadurch ich jenen all-
 gemeinen Begriff bestimme, so bedarf
 ich auch zum Erkenntnis meiner selbst
 1000 außer dem Bewußtsein, oder außer dem,
 daß ich mich denke, noch einer An-
 schauung des Mannigfaltigen in mir, wo-
 durch ich diesen Gedanken bestimme,
 und ich existiere als Intelligenz, die sich
 1005 lediglich ihres Verbindungsvermögens
 bewußt ist, in [B159] Ansehung des Man-
 nigfaltigen aber, das sie verbinden soll,
 einer einschränkenden Bedingung, die
 sie den inneren Sinn nennt, unterworfen,

§25. [untitled]
 [...] Just as for cognition of an object
 distinct to me, besides the thought of
 an object as such (in the category) I
 of course still also require an intui-
 tion through which I determine that
 universal concept; for cognition of
 myself, in addition to that conscious-
 ness, or additionally, that I think my-
 self, I require likewise an intuition of
 the manifold within me, through
 which I determine this thought, and I
 exist as intelligence which is only
 conscious of its capacity to conjoin,
 yet in regard to this manifold it shall
 conjoin, it is subject to a limiting con-
 dition, which may be called inner
 sense, to make that conjunction

B152 (ll. 963–75): Kant’s statement recaps the points just discussed, to stress that this role of ‘imagination’ within human sensory perception, actively specifying sensibility and its synthesis of (sensory) intuition in accord with the categories, ‘must be the transcendental synthesis of imagination’. This Kant describes as ‘an effect of the understanding upon sensibility’. This action of understanding upon sensibility, which *is* transcendental synthesis of imagination, is ‘the first application’ of understanding (which is the power of judging by using the categories) to objects (*Gegenstände*) of any humanly possible sensory intuition. This *is* ‘figurative synthesis’ (l. 976); it grounds any and all further possible use of categories in connection with objects which we can at all sense or perceive; *i.e.*, it grounds any and all explicit judgments we can make about them. (These syntheses all pertain to sensory binding.)

B152 (ll. 976–90): This active, figurative synthesis counts as ‘productive imagination’. It contributes to explicating *a priori* the very possibility of knowledge; I surmise, it concerns perceptual discrimination. The merely reproductive imagination does not so contribute (Kant says); although its retention of passing and immediately past sensory states is necessary to any and all sensory-perceptual discrimination, it has no implications for *a priori* explication of those formal structures by which objective validity is at all possible for our sensory experience or perceptual judgments. (The long ellipsis here omits Kant’s discussion of self-affection, B152–8, including the start of §25. My key reason for omitting it is stated above, §2.5.)

3.13 §25: [untitled]

B158 (ll. 993–8): Kant recalls his key deictic, referential point, that any knowledge of any object distinct to oneself requires, in addition to the thought of an object as such (using one or another category, or some categories), some sensory intuition (of some sensorily given, perceptually presented particular). Yet he recalls this referential point to highlight an important, parallel point about the very possibility of any human thinking: ‘I think ...’.

B158 (ll. 998–1006): Kant’s self-referential point is that the self-attribution expressed by and achieved through any actual thought that ‘I think ...’ requires, in addition to that thought, also some intuition of some manifold within oneself (within one’s cognisance) by which one specifies that first-person thought that ‘I think ...’ (such-and-so).

B158–9 (ll. 999–1013): Kant’s point is extremely important, however speculative, contentious, anti-Cartesian, anti-Humean or anti-egoist it may appear to be (re: egoism, cf. *Anth.* §2). Kant claims that any actual occurrence, any actual ‘tokening’ (as is said today), of ‘I think ...’ is *not* self-sufficient; it can be thought, Kant claims, only in connection with some complex or manifold of which one is aware and regarding which one thinks that ‘I think ... (such-and-so)’. If indeed thinking requires judging, and judging requires forming and consid-

1010 jene Verbindung nur nach Zeitverhältnissen, welche ganz außerhalb den eigentlichen Verstandesbegriffen liegen, anschaulich machen, und sich daher selbst doch nur erkennen kann, wie sie,
1015 in Absicht auf eine Anschauung (die nicht intellektuell und durch den Verstand selbst gegeben sein kann), ihr selbst bloß erscheint, nicht wie sie sich erkennen würde, wenn ihre Anschauung
1020 intellektuell wäre.

intuitable (or viewable) only according to temporal relations, which lie entirely outside the concepts of the understanding proper. Hence one can only know oneself as one merely appears in regard to an intuition (which is not intellectual and cannot be given through the understanding itself), and not as one would know oneself if one's intuition were intellectual.

ering complete judgments, thinking that 'I think ...' is only possible by *also* thinking its proper complement on some occasion, within some temporal context. Any one of us finite *homo sapiens sapientes* who thinks 'I think ...' exists as intelligence solely conscious of one's own capacity to conjoin *in regard of* some manifold which is to *be* conjoined, *i.e.*, some plurality or complex of sensed or perceived features of particulars and some plurality of concepts by which they are classified and so are identified, at least tentatively, so that they can be (provisionally) ascribed to some particular.

B159 (*ll.* 1001–9): The necessity of this complex complement required ever to consider thinking 'I think ...' is a condition restricting the human possibility of thinking 'I think ...'.

B159 (*ll.* 1003–14): More specifically, this complex complement to 'I think ...' involves, directly or indirectly, some sensory-perceptual content which, insofar as *it can be* judged or can by judgment be comprehended, alone provides any *occasion* to judge and so provides any *occasion* to think 'I think ...' *now* (and here about *that*). As an *occasional* thought, the 'I think ...' is subject to temporal relations, which pertain both to the relevant sensory-perceptual integration and also to the conceptual-classificatory *conjoining* which *is* the judging *now* that this (or these) particular(s) are such-and-so. Temporal relations (and likewise, may be added: spatial relations) are *not* defined or specified by the 12 categories; they are defined or specified by properly delimiting the distinct *a priori* concept 'time' (and 'space') so as to be able to specify what is *now* sensorily presented (here and now) to me. Hence, to elucidate Kant's point further, our thinking 'I think ...' requires using the categories, which themselves can be used only by also using the concepts 'time' (and 'space') so as to identify within one's present (*i.e.*, current) perceptual context whatever is *now* to be seen *here*. (Including space and its concept accords with Kant's marginalium that the Schematism must also be developed in connection with space, not only time; *GS* 23:48.16–7; *cf.* Erdmann (1881), No. CXXVII.)

B159 (*ll.* 1015–20): These restrictions upon the humanly possible use of 'I think ...' all follow from our *sensory*, receptive form of intuiting; we can only think 'I think ...' *now*, on some occasion, hence at some time, hence subject to conditions not specified solely by the categories (plus the concepts 'space' and 'time'), nor by the bare 'I think ...' as such.

§ 26. Transscendentale Deduction des allgemein möglichen Erfahrungsgebrauchs der reinen Verstandesbegriffe.

1025 In der metaphysischen Deduction wurde der Ursprung der Kategorien a priori überhaupt durch ihre völlige Zusammen-
1030 treffung mit den allgemeinen logischen Functionen des Denkens darge-
1035 than, in der transscendentalen aber die Möglichkeit derselben als Erkenntnisse a priori von Gegenständen einer Anschauung überhaupt (§ 20, 21) dargestellt. Jetzt soll die Möglichkeit, durch Kategorien
1040 die Gegenstände, die nur immer unseren Sinnen vorkommen mögen, und zwar nicht der Form ihrer Anschauung, sondern den Gesetzen ihrer Verbindung nach a priori zu erkennen, also der Natur
1045 gleichsam das Gesetz vorzuschreiben und sie sogar möglich zu machen, erklärt [B160] werden. Denn ohne diese ihre Tauglichkeit würde nicht erhellen, wie
1050 alles, was unseren Sinnen nur vorkommen mag, unter den Gesetzen stehen müsse, die a priori aus dem Verstande allein entspringen.

Zuvörderst merke ich an, daß ich unter der Synthesis der Apprehension die Zusammensetzung des Man-
1050 nigfaltigen in einer empirischen Anschauung verstehe, dadurch Wahrnehmung, d.i. empirisches Bewußtseyn derselben (als Erscheinung), möglich wird
1055 [...]. [B161]

§ 26. Transcendental Deduction of the Universally Possible Experiential Use of the Pure Concepts of the Understanding.

In the metaphysical deduction the origin of the categories *a priori* as such was exhibited by their complete correspondence to the universal logical functions of thinking, however in the transcendental [deduction] their possibility as cognitions *a priori* of objects of an intuition as such (§§ 20, 21) was exhibited. Now shall be explicated the possibility by these categories to cognize the objects which can only ever present themselves to our senses, and indeed not according to the form of their intuition, but rather according to the laws of their connection *a priori*, hence as it were to prescribe the law to nature and to make it [nature] possible. For without this, their sufficiency, it would not be clear how everything whatsoever which can confront our senses must stand under laws which stem *a priori* only from the understanding.

First I remark that by *synthesis of apprehension* I understand the placing together of the manifold in an empirical intuition, so that perception, *i.e.* empirical consciousness of it (as appearance) becomes possible [...].

3.14 §26: Transcendental Deduction of the Universally Possible Experiential Use of the Pure Concepts of the Understanding.

B159 (*ll.* 1025–33): Kant recalls his previous presentation of the categories as corresponding precisely to the universal logical functions of judging. That is Kant’s ‘metaphysical deduction’ of the categories. In contrast, their ‘transcendental’ deduction must present their possibility as *a priori* cognitions of intuited objects as such. Kant’s refers to §§20, 21 as *indicating* this task of their transcendental deduction; he does not claim to have already executed that task.

B159 (*ll.* 1033–9): Kant’s task now is to explicate *a priori* the possibility of cognition of any objects which can be presented to (or by) our senses, not according to their intuitive form (as spatio-temporal), but according to (*a priori*) laws of their connection or conjoining.

B159 (*ll.* 1036–9): Such an explication is, ‘as it were’ (*gleichsam*) to prescribe the law to nature and so to ‘make’ nature ‘possible’. Kant’s expressly figurative language cautions against hasty appeal to the generative sense of ‘constitution of objects’, and expressly allows for the presuppositional sense of ‘constitution’ of nature (or of particulars within nature) *as* objects of our possible sensation, perception, experience, judgment and apperceptive awareness (above, §2.15). Kant’s Deduction of the categories does set constraints on particulars we can perceive, experience or judge, but these are epistemic, transcendental constraints; they are not developed in the Analytic of Concepts, but in the Analytic of Principles.

B160 (*ll.* 1042–7): The point of Kant’s Deduction is to show that proper use of the categories is necessary to be aware of sensed particulars, *as* the particulars they are; so that whatever *can* be presented to our senses must stand under laws deriving *a priori* from the understanding alone. (Serious philosophical issues concern whether Kant’s Deduction must, or does, prove such an unrestricted universal thesis about *any* particulars the senses may present; or whether it may suffice for Kant to show that apperceptive human experience is only possible if *some* sensed particular(s) can be properly identified by correct use of the categories, leaving it then to empirical inquiry to specify how extensive may be such identifiability of sensed objects. Kant’s observations at the end of §25 about the occasional character of any actual ‘I think ...’ may support the latter, weaker thesis.)

B160 (*ll.* 1048–54): Kant remarks on the cognitive process(es) involved in integrating manifold, complex, variegated sensory intake, sufficient to afford perceptual, *i.e.*, empirical consciousness (as distinct to apperceptive perceptual consciousness). His point about process helps identify issues of cognitive validity addressed subsequently. (Omitted is a brief passage about space and time as unitary formal intuitions, not merely forms of sensory receptivity; his key premiss for the ensuing proof is retained on B161, here *l.* 1056–7.)

[...] Einheit der Synthesis des Mannigfaltigen außer oder in uns, mithin auch eine Verbindung, der alles, was im Raume oder der Zeit bestimmt vorge-

1060 stellt werden soll, gemäß seyn muß, [ist] a priori als Bedingung der Synthesis aller Apprehension schon mit (nicht in) diesen [raum-zeitlich, sinnlichen] Anschauungen zugleich gegeben.

1065 Diese synthetische Einheit aber kann keine andere seyn, als die der Verbindung des Mannigfaltigen einer gegebenen Anschauung überhaupt in einem ursprünglichen Bewußtseyn, den Categori-

1070 en gemäß, nur auf unsere sinnliche Anschauung angewandt. Folglich steht alle Synthesis, wodurch selbst Wahrnehmung möglich wird, unter den Categori-

1075 en; und da Erfahrung Erkenntniß durch verknüpfte Wahrnehmungen ist, so sind die Categori- Bedingungen der Möglichkeit der Erfahrung und gelten also a priori auch von allen Gegenständen der Erfahrung.

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[...] *Unity of synthesis* of the manifold outside or within us, hence also a connection with which must accord everything which shall be represented determinately within space or time, [is] given at once *a priori* as condition of the synthesis of all apprehension already with (not in) these [sensible, spatio-temporal] intuitions.

However, this synthetic unity can be none other than the binding of the manifold of a given intuition as such in an original consciousness according to the categories, applied solely to our sensible intuition. Consequently all synthesis, by which even perception is possible, stands under the categories; and since experience is cognition through connected perceptions, the categories are thus conditions of the possibility of experience and are thus valid *a priori* also of all objects of experience. [...]

* * *

B161 (*ll.* 1056–79): Insofar as particulars (of whatever sort or scale) are sensed by or presented to us *via* our senses and so are sensed by or presented to us spatio-temporally, the two *a priori* concepts ‘space’ and ‘time’ pertain to them; whatever is so presented to us falls within the intension (scope) of those two concepts. However, these conditions as such do not at all suffice to individuate, discriminate or identify any sensed particular whatever. Neither do these conditions suffice to specify any instance of any *a priori* categorical feature(s) of our *concept* of an object as such. Hence these sensory, intuitive, spatio-temporal, conceptual and judgmental conditions do *not* suffice to specify any complement to any (attempted) apperceptive ‘I think ...’. Actually to *think* any instance of ‘I think ...’ involves thinking *about* some particular(s) or others *now* sensorily presented (*here* or *there*). Any such humanly possible thought must be structured and facilitated by judgmental use of categories, which we must be *able* to use to discriminate some sensorily presented particular(s). This does entail constraints on humanly identifiable particulars, *but* those constraints are the topic of the *Analytic of Principles*. Kant’s point in the *Deduction* is that anyone who can think ‘I think ...’ must think by using the categories in making judgments, however approximate, tentative or inaccurate, by which s/he *can* identify and discriminate, at least presumptively, some spatio-temporal sensed particular(s), so as to be *able* to think that s/he perceives *that* or *them*, *now* (and *there*), so as to realise the incomplete thought ‘I think ...’ by ascribing that thought to oneself in the context of being *able* to identify, individuate and correctly (if perhaps crudely) identify some feature(s) of some perceived particular(s), and only thus being *able* to think and to correctly conceive oneself *as* perceiving that or those particular(s). Without using the categories in presumptive cognitive judgments about some particular(s) or other(s), one could neither think nor say ‘*it is* (such-and-so)’; indeed, not even to think or to say ‘*it seems to me to be* (such-and-so)’, because even this thought and judgment require discriminating by localising the relevant ‘it’, in part by delimiting the region (spatial scope) within which one *now* (period) perceives it, *by* ascribing at least some feature(s) to it. Kant’s *Deduction* focuses on the highest conceptual and judgmental conditions which must be satisfied for any actual instance of any humanly possible ‘I think ...’. The *Analytic of Principles* examines the correlative constraints upon sensed, perceived particulars, such that we can at all identify them.

Kant’s point in the *deduction* is that *any* humanly possible discrimination of *specific* regions of space and of *specific* periods of time require discriminating *particulars* which one identifies *within* some perceptual-experiential context, on some occasion, *as* having their specific spatial configuration and temporal duration, both of which can be specified only by conjointly specifying some *features* of those particulars by which one *can* at all discriminate them from one another, and contrast it or them *to* oneself and one’s perceiving of *it* or *them*. All these specific, particular discriminations require competent judgmental use of the categories and the concepts

[B162] Wenn ich also z. B. die empirische Anschauung eines Hauses durch Apprehension des Mannigfaltigen derselben zur Wahrnehmung mache, so liegt mir die notwendige Einheit des Raumes und der äußeren sinnlichen Anschauung überhaupt zum Grunde, und ich zeichne gleichsam seine Gestalt, dieser synthetischen Einheit des Mannigfaltigen im Raume gemäß. Eben dieselbe synthetische Einheit aber, wenn ich von der Form des Raumes abstrahiere, hat im Verstande ihren Sitz, und ist die Kategorie der Synthesis des Gleichartigen in einer Anschauung überhaupt, d. i. die Kategorie der Größe, welcher also jene Synthesis der Apprehension, d. i. die Wahrnehmung, durchaus gemäß sein muß.*

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* * * [... B163]

If, *e.g.*, I make the empirical intuition of a house through apprehension of its manifold into perception, fundamental to my so doing is the *necessary unity* of space and outer sensible intuition as such, and I as it were draw its figure in accord with this synthetic unity of the manifold in space. However, this very same synthetic unity, if I abstract from the form of space, is rooted in the understanding, and is the the category of synthesis of the uniform in an intuition as such, *i.e.*, the category of *quantity*, with which that synthesis of apprehension, *i.e.*, the perception, must therefore entirely accord.*

* In this way is proven: that the synthesis of apprehension, which is empirical, must necessarily accord with the synthesis of apperception, which is intellectual and is contained entirely *a priori* in the category. It is one and the same spontaneity which there, under the name of imagination, and here under the name of understanding, brings conjunction into the manifold of intuition.

* * *

‘space(s)’ and ‘time(s)’ to identify by classifying (specifying) *conjointly* all of these discriminated features, particulars, relations and occasion. Without such possible competent use of categories in prospectively cognitive judgments *within* perceptual contexts we never could *be* able merely to judge (or to say), *this* particular IS such-and-so; indeed, we could never merely judge (or say), ‘I think ... *this* particular appears to me such-and-so’, because such hesitant reports of sensory appearances require identifying that which so appears to oneself *as* some particular which so appears. This much, at least, Kant proves in his Deduction of the Categories.

B162 (*ll.* 1081–1099): Mercifully, Kant illustrates his point with an example which can only be fully explicated in the ‘Analogies of Experience’ (*N.B.*: all three Analogies conjointly! *KCE* §§44–61): perceiving a house (B162, *cf.* B235, 237). Recalling the previous comments, the key points are these: Perceiving (*e.g.*) a house presupposes the necessary unity of space within which the house is located. That presupposition, however, does not suffice to specify any *region* of space occupied by the house. Specifying this region requires arbitrarily delimiting the concept ‘space’ to conceive *this* specific region of space, by ‘as it were’ outlining the boundary of the house, which requires identifying some structural features *of the house*. Its foundation (at ground level), walls and roof, at least approximately. Here Kant anticipates exactly Evans’ (1975) point about the mutual interdependence of identifying the spatial boundaries of any perceived thing and ascribing to that thing some manifest features (by which alone the relevant boundaries can be identified). Here Kant stresses that identifying and discriminating (differentiating) *that* spatial region occupied by *that* house uses (*inter alia*) the category of quantity to identify the house’s spatial quantity (size, shape, place), and that the sensory synthesis required to perceive this house must also accord with this same quantitative, categorial synthesis and the conceptual specification it affords of the location and dimensions of the house.

B162 (*ll.* 1100–10): Kant notes (*) that this illustration, together with the previous main text of §26, prove that the empirical synthesis of sensory apprehension (sensory binding) must necessarily accord with the intellectual, categorial synthesis which affords any explicit (apperceptive, prospectively accurate) recognition of *that* space occupied by *that* house. Kant reiterates the two-fold spontaneous use of the categories, one sub-personal by transcendental power of imagination, which affords sensory synthesis (binding) required to perceive any particulars; the other explicit by understanding, exercised in explicit judging of whatever particular(s) one localises within one’s surroundings, which *can* be judged in overt cognitive judgments. That these are one and the same ‘spontaneity’ does not entail token identity of particular conjunctions, combinations or syntheses effected in these two fundamental regards: one sensory-perceptive, the other intellectual.

1115 Kategorien sind Begriffe, welche den
 Erscheinungen, mithin der Natur als
 dem Inbegriffe aller Erscheinungen (*na-*
tura materialiter spectata) Gesetze *a priori*
 vorschreiben; und nun frägt sich, da sie
 nicht von der Natur abgeleitet werden
 und sich nach ihr als ihrem Muster rich-
 1120 tigen (weil sie sonst bloß empirisch seyn
 würden), wie es zu begreifen sei, daß die
 Natur sich nach ihnen richten müsse, d.i.
 wie sie die Verbindung des Mannigfalti-
 gen der Natur, ohne sie von dieser ab-
 zunehmen, *a priori* bestimmen können.
 1125 Hier ist die Auflösung dieses Räthsels.

B164] Es ist um nichts befremdlicher,
 wie die Gesetze der Erscheinungen in
 der Natur mit dem Verstande und seiner
 Form *a priori*, d.i. seinem Vermögen das
 1130 Mannigfaltige überhaupt zu verbinden,
 als wie die Erscheinungen selbst mit der
 Form der sinnlichen Anschauung *a priori*
 übereinstimmen müssen. Denn Gesetze
 existiren eben so wenig in den Erschei-
 1135 nungen, sondern nur relativ auf das Sub-
 ject, dem die Erscheinungen inhären,
 so fern es Verstand hat, als Erscheinun-
 gen nicht an sich existiren, sondern nur
 relativ auf dasselbe Wesen, so fern es
 1140 Sinne hat. Dingen an sich selbst würde
 ihre Gesetzmäßigkeit nothwendig auch
 außer einem Verstande, der sie erkennt,
 zukommen. Allein Erscheinungen sind
 nur Vorstellungen von Dingen, die nach
 1145 dem, was sie an sich seyn mögen, uner-
 kannt da sind. Als bloße Vorstellungen

Categories are concepts which pre-
 scribe laws *a priori* to appearances,
 hence to nature as the totality of all
 appearances (*natura materialiter specta-*
ta); and now the question is, since
 they are not derived from nature and
 so would address it as their exem-
 plary instance (because they would
 thus be merely empirical), how is it
 comprehensible that nature must ad-
 dress them, *i.e.* how can they deter-
 mine *a priori* the connection of the
 manifold of nature, without being
 derived from it. Here is the solution
 to this riddle.

It is no more baffling, how the laws
 of the appearances within nature
 must as such be connected with the
 understanding and its *a priori* form,
i.e., with its capacity to connect the
 manifold as such, than how appear-
 ances themselves must agree *a priori*
 with the form of sensible intuition.
 For laws exist just as little within ap-
 pearances, but rather only relative to
 the subject in which appearances in-
 here, so far as it has understanding,
 as appearances do not exist in them-
 selves, but rather only relative to that
 same being, insofar as it has senses.
 To things in themselves would neces-
 sarily be ascribed their lawfulness,
 also apart from any understanding
 which knows them. However appear-
 ances are only representations of
 things, which are there, altogether

B163 (*ll.* 1112–16): Kant again states that the categories prescribe laws to nature (as the sum total of appearances) *a priori*. This may appear to affirm the generative sense of ‘constitution of objects’ (above, §2.15), but it need not be so interpreted: It may suffice to affirm the second, presuppositional sense, that only those sensed particulars which can be judged using the categories can be ‘anything for me’, as Kant says earlier in the Deduction (§16), when recognising that sensory states may well occur within oneself, of which one would or could never become self-consciously aware (above, §3.4). Kant’s term ‘appearances’ can be used, and is used by Kant, in several senses. Caution is required to discern which senses of ‘appearance(s)’ is or is not ruled in, or ruled out, by various aspects of Kant’s transcendental reflections on possible experience and its conditions.

B163 (*ll.* 1116–25): Kant poses the puzzle about how our *a priori* categories can (even appear to, ‘as it were’) prescribe laws to (or constraints upon) nature, if they are *a priori* and not taken from nature.

B164–5 (*ll.* 1126–70): Kant’s solution to the puzzle appeals to transcendental idealism, according to which ‘appearances’ ‘inhere in the subject’ (*ll.* 1131–40). Accordingly, whatever structure(s) inhere in appearances depend upon the subject in which those appearances inhere. Hence there is no particular surprise that appearances must exhibit whatever structures are required by that subject’s forms of sensibility (receptivity) and forms of intellect (judgment). ‘Appearances, however, are only representations of things’, and these representations are structured by the representing subject (*ll.* 1143–50).

Kant’s solution is not entirely satisfactory, in part because it is too convenient. I have argued elsewhere (*KTPR*) that Kant’s transcendental idealism requires (as he insists) a radical dichotomy between the formal structures of experience (which alone are said to be ‘legislated’ by our human form of cognisance) and the material content(s) of experience, including quite specific sensory contents. Kant’s transcendental idealism is designed to account for formal *a priori* conditions of possible human apperceptive experience which are either conceptual or intuitive. Yet Kant’s probing examination of the formal *a priori* conditions necessary for the possibility of our apperceptive experience also identifies a key formal *a priori* condition which is neither conceptual nor intuitive but rather is *material*: The humanly identifiable kinds and degrees of similarity and variety amongst the contents of sensory intake. Such humanly identifiable kinds and degrees of similarity and variety amongst the contents of sensory intake, and likewise at a richer level of integration such sensory intake affords, also amongst the *objects* of sensory intuition and perception (Kant makes the point at both these levels), in principle *cannot* be generated by the structure and functioning of our human sensibility or intellect, whether singly or conjointly. The matter of sensation itself, must be given us *ab extra* (from without), not generated by the human subject; this thesis is (partly)

aber stehen sie unter gar keinem Gesetze der Verknüpfung, als demjenigen, welches das verknüpfende Vermögen vor-
1150 schreibt. Nun ist das, was das Mannigfaltige der sinnlichen Anschauung verknüpft, Einbildungskraft, die vom Verstande der Einheit ihrer intellektuellen Synthesis und von der Sinnlichkeit der
1155 Mannigfaltigkeit der Apprehension nach abhängt. Da nun von der Synthesis der Apprehension alle mögliche Wahrnehmung, sie selbst aber, diese empirische Synthesis, von der transscendentalen, mithin den Kategorien abhängt, so müssen alle mögliche Wahrnehmungen, mithin auch alles, was zum empirischen Bewußtseyn immer gelangen kann, d.i.
1160 [B165] alle Erscheinungen der Natur, ihrer Verbindung nach unter den Kategorien stehen, von welchen die Natur (bloß als Natur überhaupt betrachtet) als dem ursprünglichen Grunde ihrer nothwendigen Gesetzmäßigkeit (als *natura formaliter spectata*) abhängt. Auf mehrere
1170 Gesetze aber als die, auf denen eine Natur überhaupt als Gesetzmäßigkeit der Erscheinungen in Raum und Zeit beruht, reicht auch das reine Verstandesvermögen nicht zu, durch
1175 bloße Kategorien den Erscheinungen a priori Gesetze vorzuschreiben. Besondere Gesetze, weil sie empirisch bestimmte Erscheinungen betreffen, können davon nicht vollständig abgeleitet werden, ob sie gleich alle insgesamt unter jenen stehen. Es muß Erfahrung dazu kom-

regardless of what they may be in themselves. However, as mere representations they stand under no other laws of connection than those which the connecting capacity prescribes. Now that which connects the manifold of sensible intuition is the power of imagination, which depends upon the understanding for the unity of its intellectual synthesis and upon sensibility of the manifold of apprehension. Now since all possible perception depends upon the synthesis of apprehension, which itself, this empirical synthesis, depends upon the transcendental [synthesis], hence upon the categories, so must all possible perceptions, hence also everything which can ever enter empirical consciousness, *i.e.*, all appearances of nature as regards their conjunction, must stand under the categories, upon which depends nature (regarded merely as nature as such) as the original ground of their necessary lawfulness (as *natura formaliter spectata*). However, to the *many laws*, other than those upon which rests a *nature as such* as lawfulness of appearances in space and time, even the pure capacity of understanding is insufficient by mere categories to prescribe *a priori* laws to appearances. Particular laws, because they concern empirically determined appearances, cannot be completely derived from [those categories], al-

constitutive of Kant's transcendental idealism, and is required to distinguish his idealism from unmitigated subjective idealism. If the matter of sensation itself is given us *ab extra*, then whatever similarities and varieties that matter of sensation has, it has. Which of these may be humanly recognisable is a distinct issue, but whichever of them may be or are humanly recognisable, those varieties and similarities are *not* 'legislated' by the human mind in the sense of *generating* them. Our mind can only set constraints, constraints which Kant acknowledges cannot be specified *a priori* on philosophical grounds, upon there *being* some minimal, humanly recognisable degree of similarity and variety amongst the content of our sensory intake, such that we can at all integrate our sensory intake (binding) so as to be able to perceive our surroundings, and so to be able to judge at least some particulars to be such-and-so, such that we can at all think 'I think ...' that those particulars there and then or now and here are such-and-so, and only thus to be able to apperceptive them (and ourselves). This minimum degree of humanly recognisable similarity and variety amongst the contents of sensations *is* the transcendental affinity of the sensory manifold. I have argued (KTPR Ch. 3) that Kant justifies this requirement by sound transcendental proof in *KdrV*, that this sound proof demonstrates that Kant's key arguments for transcendental idealism are invalid, and that this sound proof exhibits exactly the structure and provides exactly the model required for sound versions of the 'neglected alternative' objection to Kant's arguments for transcendental idealism. Remarkably, paying more careful attention to Kant's own distinctions and relations between the two distinct uses of the categories, one in sub-personal sensory binding and object-discrimination (productive imagination), the other in making any cognitive judgments, whether explicit or implicit (understanding), and to Kant's own distinctions and relations between issues of cognitive process and issues of cognitive validity, provides a sound and sufficient basis for his Transcendental Deduction of the Pure Concepts of the Understanding, without appeal to his transcendental idealist account of objects as (mere) appearances to us. This vindicates the presuppositional rather than the generative sense of 'constitution of objects' (above, §2.15). Kant's account of sensation, sensory intuition and the 'matter of appearance' are in fact more subtle and sophisticated than this passage allows; see §5.

B165 (*ll.* 1170–87): Without specifying them, Kant merely states that his Deduction can demonstrate no more laws than those required for the lawfulness of nature as such. These 'laws' are specified in the 'Analytic of Principles' (and anticipated in the Schematism; *KCE* §30). Particular laws of nature, Kant avers, must be specifications of these *a priori* principles, which we can only learn through empirical inquiries. This leaves open many questions regarding Kant's 'Analytic of Principles' and its relations to empirical physics, only some of which are addressed in the 'Transcendental Dialectic', others are considered in Kant's *Meta-*

men, um die letztere überhaupt kennen zu lernen; von Erfahrung aber überhaupt und dem, was als ein Gegenstand derselben erkannt werden kann, geben allein jene Gesetze a priori die Belehrung.

§ 27. Resultat dieser Deduction der Verstandesbegriffe.

Wir können uns keinen Gegenstand denken, ohne durch Categorien; wir können keinen gedachten Gegenstand erkennen, ohne durch Anschauungen, die jenen Begriffen entsprechen. Nun sind alle unsere Anschauungen sinnlich, und diese Erkenntniß, so fern der Gegenstand derselben gegeben ist, ist empirisch. Empirische Erkenntniß aber [B166] ist Erfahrung. Folglich ist keine Erkenntniß a priori möglich, als lediglich von Gegenständen möglicher Erfahrung.*

* Damit man sich nicht voreiliger Weise an den besorglichen nachtheiligen Folgen dieses Satzes stoße, will ich nur in Erinnerung bringen, daß die Categorien im Denken durch die Bedingungen unserer sinnlichen Anschauung nicht eingeschränkt sind, sondern ein unbegrenztes Feld haben, und nur das Erkennen dessen, was wir uns denken, das Bestimmen des Objects, Anschauung bedürfe; wo beim Mangel der letzteren der Gedanke vom Objecte übrigens

though they all stand under them. Experience too must be considered to discover these latter in any regard; only regarding experience as such, and that which can be cognized as an object of experience, do those *a priori* laws [of the understanding] instruct us.

§ 27. Result of this Deduction of the Concepts of the Understanding.

We cannot think any object, if not through categories; we cannot cognise any object thought, except through intuitions which correspond to those concepts. Now all our intuitions are sensory, and this cognition, so far as its object is given, is empirical. However, empirical cognition is experience. Consequently *no cognition* is possible for us *a priori*, except of *objects of possible experience*.*

* So that no one prematurely stumbles over the worrisome disadvantageous consequences of this proposition I wish to recall that in *thinking*, the categories are not limited by the conditions of our sensible intuition, but have an unlimited field, and only the *cognition* of that which we think, the determining of the *object*, requires intuition; so that in absence of this latter the thought of an object always still can have its true and useful con-

physical Foundations of Natural Science. None of these issues should be addressed within Kant's Deduction, so it is unsurprising that here they are no more than mentioned by Kant.

3.15 §27: Result of this Deduction of the Concepts of the Understanding.

B165–6 (ll. 1190–1202): Surprisingly, most of Kant's results in the Deduction are justified, even if his transcendental idealism be set aside. Setting aside his transcendental idealism requires acknowledging that we might well *sense* or even perceive some particulars which we cannot comprehend using our categories and whatever more specific concepts we might devise (specify) on their basis, in which case we could not apperceive such irregular particulars; they would be 'nothing for me'. Even if so, Kant's Deduction is focussed primarily on the minimal sensory and perceptual constraints which must be fulfilled if ever one is to be able to think 'I think ...', which can only be thought (by us human beings) in connection (reference) to some perceived particular(s) we can perceptually discriminate and localise on some occasion in some spatio-temporal, perceptual context, and so can judge them (accurately enough) to be such-and-so. Such occasions only can be provided us by spatio-temporal particulars which we can localise within space and time *by* perceptually discriminating them by identifying and integrating at least some of their manifest features, all of which we can classify and judge to be *these* features of *that* particular in some sufficiently accurate cognitive judgment. This conditional thesis *is* a bit of *a priori* knowledge about necessary conditions for the very possibility of human apperception: We can, and we can only, use our basic conceptual categories to judge sensed, perceived particulars within our surroundings. Hence we can only use our categories in (referential, ascriptive) connection to such particulars we can experience. These are Kant's epistemic modalities of possible experience and some of its necessary *a priori* conditions. If such results seem meagre for all this effort, they suffice to undercut Cartesian, Humean, Pyrrhonian and global perceptual scepticisms – no trivial result! It also provides the cognitive semantics of singular reference required to undercut all global perceptual 'hypotheses' as mere thoughts with *no* possible reference to particulars, hence no *cognitive* status whatsoever; hence they do not undermine or 'defeat' cognitive justification. (For detailed discussion, see *KCE*.)

B166–7 (ll. 1203–22): Kant hastens to stress (*) that his Deduction concerns the use of categories in knowledge. That their intension (conceptual content) is not limited to sensory particulars entails that they have a much broader semantic scope (intension), which Kant here indicates is important to using categories in practical philosophy, which is another

1215 noch immer seine wahre und nützliche
 Folgen auf den Vernunftgebrauch
 des Subjects haben kann, der sich
 aber, weil er nicht immer auf die Be-
 stimmung des Objects, mithin aufs
 1220 Erkenntniß, sondern auch auf die des
 Subjects und dessen Wollen gerichtet ist,
 hier noch nicht vortragen läßt. [... B168]
 [...] daß in solchem Falle [eines Präfor-
 mationssystem] den Kategorien die
 1225 Nothwendigkeit mangeln würde, die
 ihrem Begriffe wesentlich angehört.
 Denn z.B. der Begriff der Ursache,
 welcher die Nothwendigkeit eines Er-
 folgs unter einer vorausgesetzten Bedin-
 1230 gung aussagt, würde falsch seyn, wenn er
 nur auf einer beliebigen uns eingepflanzen
 subjectiven Nothwendigkeit, gewisse
 empirische Vorstellungen nach einer sol-
 chen Regel des Verhältnißes zu verbind-
 1235 den, beruhte. Ich würde nicht sagen kön-
 nen: die Wirkung ist mit der Ursache im
 Objecte (d.i. nothwendig) verbunden,
 sondern ich bin nur so eingerichtet, daß
 ich diese Vorstellung nicht anders als so
 1240 verknüpft denken kann; welches gerade
 das ist, was der Sceptiker am meisten
 wünscht; denn alsdann ist alle unsere
 Einsicht durch vermeinte objective Gül-
 tigkeit unserer Urtheile nichts als lauter
 1245 Schein, und es würde auch an Leuten
 nicht fehlen, die diese subjective Noth-
 wendigkeit (die gefühlt werden muß)
 von sich nicht gestehen würden; zum
 wenigsten könnte man mit niemanden
 1250 über dasjenige hadern, was bloß auf der

sequences for *the subject's use of reason*,
 which cannot be considered here be-
 cause they do not always concern the
determination of the object, and so cog-
 nition, but rather concern the subject
 and its will. [...]

[...] that in such a case [of a system of
 preformation] the categories would
 lack *necessity*, which belongs essentially
 to their concept. For the concept of
cause, e.g., which expresses the neces-
 sity of a consequence under a presup-
 posed condition, would be false, if it
 rested only upon an arbitrary subjec-
 tive necessity, implanted in us, by
 which we connect certain empirical
 representations according to such a
 regular relation. I would not be able
 to say: the effect is connected within
 the object (*i.e.*, necessarily), but rather
 only that I am so constituted that I
 cannot think this representation oth-
 erwise than as so connected; which is
 exactly what the sceptic most wants;
 for then all our insight through pre-
 sumed objective validity of our judg-
 ment is nothing but mere appearance,
 and there would not fail to be people
 who would not themselves corrobo-
 rate this subjective necessity (which
 must be felt); at the least one could
 not argue with anyone about that
 which merely depends upon how his
 subject[ivity] is organised.

topic (though the Transcendental Dialectic has important discussions of the regulative use of experience-transcendent ideas of reason to organise our empirical enquiries and knowl- edge).

B168 (*ll.* 1222–52): I have omitted most of Kant's discussion of a possible alternative to his Deduction, that there might be some sort of pre-established harmony by preformation of our human cognitive capacities, such that these be suited to knowing nature as it is, and as it is manifest to us. Kant rightly rejoins that no such *explanatory* hypothesis can address the key normative issues of whether any judgments so formed using our most basic concepts are or can be objectively *valid*, *i.e.*, sufficiently accurate and justified to constitute knowledge. This holds for any and all sorts of 'innateness' hypotheses. Insofar as such hypotheses (merely) explain how we can or must think, they are open invitations to sceptics to rejoin, so much the worse for how we must or do think; none of that proves anything about whether our thinking can or does ever count as knowledge of particulars in our surroundings. Kant's example and his comments on it, namely, the concept 'cause', directly recall his earlier comments on the 'dignity' (B124, *l.* 171), the modal intension and justificatory status of this concept, which in principle contrasts to the subjective contingencies of our empirical (or rather: our empiricist) evidence, and that to these subjective contingencies contrasts, in principle, the apparently non-modal assertoric judgment, 'it (the object) *is* such-and-so' (B141–2, *l.* 610–21). Fully examined and reconstructed, Kant's analysis of our perceptual judgments (in the 'Analytic of Principles') shows that they are discriminatory, and that they can be discrimi- natory (of particulars) only by identifying (however approximately) some of their *causal* integrity. (This is the main burden of *KCE*, PART 2, especially Ch. 8.)

3.16 [no §] Brief Concept of this Deduction.

B168–9 (*ll.* 1254–65): Kant cannot be more clear or concise about his Deduction than this brief paragraph! Recall that 'determine' or 'determination' often means, and does here mean, 'specify' or 'specification'.

One key point is that Kant is correct about the *parallel* of the Transcendental Deduction of the Categories to the Transcendental Deduction of (the Concepts of) Space and Time: Particu- lars cannot be sensed by us, or presented to us by or in sensory perception, except insofar as they are spatio-temporal, so the concepts 'space' and 'time' must pertain to them. Sensed particu- lars cannot be at all *thought* by us except insofar as we judge them using the categories, be- cause the categories are required for any judging of any particulars whatsoever, *and* because we cannot even think 'I think ...' except as part of actively integrating some plurality of concepts of particulars or their features (presumptively) identified (classified) by those concepts, all of which concepts can only be specifications of our categories. Any instance of the analytical

Art beruht, wie sein Subject organisirt ist.

Kurzer Begriff dieser Deduction.

Sie ist die Darstellung der reinen Ver-
1255 standesbegriffe (und mit ihnen aller
theoretischen Erkenntniß a priori) als
Principien der Möglichkeit der Erfah-
rung, dieser aber als Bestimmung der
Erscheinungen in Raum und [B169] Zeit
1260 überhaupt, – endlich dieser aus dem
Princip der ursprünglichen synthetischen
Einheit der Apperception, als der Form
des Verstandes in Beziehung auf Raum
und Zeit als ursprüngliche Formen der
1265 Sinnlichkeit.

* * *

Brief Concept of this Deduction.

It is the presentation of the pure
concepts of the understanding (and
with these of all *a priori* theoretical
cognition) as principles of the possi-
bility of experience, of this, again, as
determination of appearances in
space and time as such, – and finally
of these from the principle of the
original synthetic unity of appercep-
tion as form of the understanding in
connection to space and time as orig-
inal forms of sensibility.

* * *

unity apperception expressed by the ‘I think ...’ requires as its necessary complement, some synthetic unity of apperception which *is* the integrated judging of this (sensed, specified) particular, *now* within this spatio-temporal sensory-perceptual context.

Kant’s Deduction need not, and does not, prove that any such humanly sense-able, intu- itible, perceptible, judgable particulars *exist* or *occur*; it need not, and does not, prove that any and all particulars are such as can be sensed, intuited *and* judged by us. It proves that no hu- manly possible instance of the analytical unity of apperception (expressed by ‘I think ...’) can occur without its complementary synthetic unity of apperception, and that this cannot occur without sensory-perceptual presentation of some particular(s) which can be (accu- rately if approximately) judged by us, in part by delimiting the spatial region of the particu- lar(s) *when* sensed and perceived by ‘me’ in *this* spatio-temporal perceptual context, in part by *using* (accurately enough) the determinable *a priori* concepts ‘space’ and ‘time’, which Kant claims are *not* amongst the categories (see below, §4). The scope and aim of Kant’s Deduc- tion is not trivial, yet it is much more restricted than often supposed. His chapter brings in so many wide-ranging issues that readers understandably have lost track of many guiding threads Kant provides, in particular, how he uses questions of process to raise and address issues of cognitive validity.

Why such elaborate contextualisation? Because the Deduction has a quite specific role within a very complex *Critique of Pure Reason*, and Kant must make plain how and why this Transcendental Deduction (§26) matters, and why there are good reasons to think it is true of *us* finite human beings – even if not all of Kant’s reasons for so thinking are, can or should be provided within the chapter on the Transcendental Deduction itself.

As for the comprehensive scope of apperception and the use of ‘I think ...’ (§§16, 17), any actual extent within anyone’s apperceptive life will depend directly upon how exten- sively anyone can chart her or his course through the world during his or her life. Kant’s point in the Deduction is only that any plurality of experiences can be *thought* to be one’s own only so far as one *can* identify each and all as belonging within the scope of what one *can* ascribe to oneself by thinking of them all ‘I think ...’.

To contemporary readers, who are happy to *use* logic as much as possible, though with- out much considering *how* we are at all *able* to use logic as such (pure logic), nor how we are at all able to use logic to think about whatever we *can* and do perceive (applied logic), the sticking point will be Kant’s purported dependency of any instance(s) of the analytical unity of apperception upon some instance(s) of a synthetic unity of apperception. Perhaps ironi- cally, Kant’s case for this dependency – that it holds true of us *homo sapiens sapientes* – is clinched by his probing analysis of the transcendental affinity of the sensory manifold and its counter-factual failure, ‘transcendental chaos’, the very principle and phenomenon which undercuts his transcendental idealism.

4 THE CONCEPTS ‘SPACE’, ‘TIME’ & THE CATEGORIES

4.1 Attentive readers may query whether I have too glibly highlighted Kant’s concepts of ‘space’ and ‘time’ whilst discounting his transcendental idealist account of space and time, and so have lost or gravely jeopardised Kant’s distinction between the categories and the concepts ‘space’ and ‘time’ and their roots in our human sensibility (above, §§3.11, 3.12); as *concepts*, the concepts ‘space’ and ‘time’ would be as discursive or descriptive as any of the categories. Such queries are germane, but have satisfactory answers. Thorough answers would require detailed examinations, not only of Kant’s philosophy of mathematics, but of his philosophy of applied mathematics and the very possibility of empirical measures of spatial and temporal dimensions, including (though not limited to) his ‘Axioms of Intuition’. Here I indicate only the key points, because they suffice to buttress Kant’s view of the distinctive character and role of the concepts ‘space’ and ‘time’, and to reinforce his appeal to them in the Deduction, and in accord with my elucidations and suggestions.

The query arises in connection with Kant’s illustration in §26 of the ubiquitous relevance of the categories to any and all sensory experience of particulars within space and time: Perceiving a house, which requires using the category ‘quantity’ to recognise and identify the size, shape and location of *this* perceived building. The category ‘quantity’, Kant there reiterates, pertains to units which can be identified solely as quanta produced by successive addition of utterly uniform, homogenous (if also specious) elements within a sensory intuition (B162, cf. B115, A142–3, 162–6/B181–2, 202–8).

Does such perceptual use of the category ‘quantity’ obviate any role for the concept ‘space’? Consider what distinguishes mere quanta from any others sorts of homogeneity. All concepts as classifications (sortals) aim to identify kinds of homogeneity, however general or specific. This much can be said, too, of the concepts of ‘spaces’ and of ‘times’, though *not* of the concepts ‘space’ or ‘time’ themselves! *Per* Kant’s Tr. Aesth., spaces are regions within space; times are periods within time. Space itself is singular, time itself is singular; there is only *one* of each and each is infinite or (rather) unbounded (cf. above, §3.5). These two unbounded singularities are each more basic than, or ‘prior to’, any segments or divisions within them: any specific space is but an arbitrarily delimited region within space; any specific time is but an arbitrarily delimited period within time. Space contains within itself any and all specific regions of space; time contains within itself any and all specific periods of time. These relations of containment or inclusion – formally: that space and time are each continuous, unbounded, infinitely dense magnitudes (and nothing else) – are in

principle distinct to those relations of comprehension (classification, *class* inclusion) typical of discursive concepts, whereby more general concepts include within their scope by *omitting* from their intension (specification) all more specific concepts of that *kind* (e.g., colour, red, vermilion). In these regards, space and time are altogether formal and extensive. Space is an unbounded manifold consisting in continuous, indefinitely divisible, concurrent, specious (unreal, merely notional) sub-regions; time is an unbounded manifold consisting in continuous, indefinitely divisible, successive, specious (unreal, merely notional) sub-periods. To be concepts (respectively) *of* space or *of* time, the concepts ‘space’ and ‘time’ must pertain to *these* distinctive structural features of space and any regions delimitable within it, and likewise of time and any periods delimitable within it. Designation of such structural features is constitutive of the respective intensions of these two concepts. We can *use* the term ‘classify’ in connection with ‘time’ and ‘times’, and in connection with ‘space’ and ‘spaces’, but we must not thereby neglect the very distinctive *kinds* of constitutive, purely formal relations involved in ‘space’, ‘spaces’, space, regions of space, nor in ‘time’, ‘times’, time or periods of time. Kant’s issue about the very concepts ‘space’, ‘time’, ‘spaces’ and ‘times’ concerns the most basic, elementary intension (with the ‘s’) of these four concepts, by which alone any sophisticated formal analyses can be constructed, and by which they can presume any relevance, *i.e.*: *referrability in principle* (*via* proper intensions) to spatial or temporal phenomena; *e.g.*, any real use of real number analysis in application to spatial or temporal phenomena. The most basic issues of interest to Kant within this very basic, circumscribed, semantic and empirical domain are more fundamental and elementary than are the apparently competing (point- or interval-based) formalisations of these domains.¹ (For this reason, too, these most basic points about the most fundamental intensions of the concepts of ‘space’ and of ‘time’ are indifferent to those metrical issues which distinguish Euclidean from non-Euclidean geometries, or also ‘absolute’ from ‘relativistic’ temporal orders.)

To use the category ‘quantity’ in connection with spaces or times requires specifying *units* of space or of time which, as homogenous quantities, *can be* successively added together (whether by perceptual estimation or by formal measures is here indifferent). Hence Kant’s illustrating the relevance of the category ‘quantity’ in §26 neither supplants nor obviates the role of the concept ‘space’, nor the concept ‘spaces’ in designating the relevant *kind* of (spatial) quantity. (*Mutatis mutandis*, the

¹ Important reminders of these basic points regarding spatial or temporal continua are provided by Arsenijević & al. (2003–2014). These issues are technical; they are summarised clearly and non-technically in Arsenijević & Adažić (2014), §§1, 6. For a careful account of Kant’s treatment of magnitude in *KdV* see Sutherland (2004a, b).

same points hold regarding the concepts ‘time’ and ‘times’, as in that period of time during which one perceives that building there and now or then).

Finally, Kant rightly highlights the distinctive roles of our *use* of the concepts of ‘space’, ‘spaces’, ‘time’ and ‘times’ in connection with our spatial and temporal forms of intuiting (forms of sensory receptivity) in our capacity to orient ourselves within our surroundings (Buroker 1981, Rusnock & George 1995, Bernecker 2012, *KCE* §57.2).² These capacities and roles are quite distinct to those of classifying particulars or their features, to which pertains the categories. This suffices for Kant’s appeal to the distinctive character, relevance and use of the concepts ‘space’ and ‘time’ in the Deduction noted above. Even if these brief considerations may not exhaust his reasons for this distinctive status of these concepts, they suffice to support Kant’s account of ‘absolute’ space (or likewise time) in terms of arbitrarily large reference frames (Carrier 1992). (All the issues discussed herein are independent of issues about non-Euclidean spaces; Kant’s specific view about Euclidean space = human space = nature’s space requires his transcendental idealism.)

4.2 The sticking point for many readers will be the empiricism about meaning (apparently) embedded in first-order predicate calculus, where the most basic terms are names of individuals or of monadic predicates designating non-relational properties, which inevitably suggests that our concepts ‘space’ or ‘time’ must be defined, acquired or constructed by logical conjunctions of terms indicating particular spaces or times, exactly as Hume proposed, though without contemporary logical syntax. This point challenges Kant’s claim that these two concepts are and must be *a priori*, because space and time are each unbounded wholes which are more basic than any specious ‘parts’ or regions within them (A23, 30, 144, 182–3/B38, 46, 183, 225–6).

The most careful attempt to account for ‘time’ on such an empiricist basis is

² There is much merit in the positive view developed by Rukgaber (2009), but his positive proposal and his opening critical comments on my own work (and upon Longunesse’s) are misguided because he ignores quite standard distinctions regarding aspects of Kant’s views of space and of time (*KTPR* 19+n.9, 121), about which I follow Paton (1936, 1:101ff.) and Allison (1983, 6–7, 96–7), and also the quite specific kind of ‘sensationalism’ I ascribe to Kant, expressly following George (1981, *KTPR* 13, 44), expressly distinct to Condillac’s. By sheer negligence, Rukgaber ascribes to me the very sensationalism developed by Condillac which I take pains to distinguish and set aside! Everything Rukgaber ascribes to the (purported) ‘ontology’ of space and time is captured by my account of the formal structures of our spatial and temporal forms of intuiting = forms of sensory receptivity. His ‘ontological’ considerations do not suffice to justify, nor even precisely to state, Kant’s distinctive transcendental idealism. Regrettably, these blunders indicate what are now common failures of instruction, supervision and refereeing within the field. They are uncorrected in Rukgaber (2020), 226.

Carnap (1928); it fails on strictly internal grounds (Westphal 1989, 230–2). Empiricists have been less careful about ‘space’, but the relevant view was developed by Descartes and decisively criticised by Newton (*ca.* 1684), as noted by Stein (1967). Descartes expressly states an atomistic conception of time as nothing but successive moments (Med. 3, AT 7:49, Replies I, 7:109, 111, II, 7:164–5), as does Hume (*T* 1.2.2.4, 1.2.3.8). Hume’s concept empiricist accounts of the ideas ‘space’ and ‘time’ fail on strictly internal grounds (Westphal 2013). Descartes problems with ‘space’ arise from his proposed ‘strict’ sense of ‘location’ solely in terms of relations of spatial contiguity, a view also required by concept empiricism. Briefly, the key issues are these.

A fundamental problem is that reducing spatial relations to no more than sets of contiguity relations is insufficient to specify merely kinematically any trajectory, whether orbital, or resulting from impact or percussion. Newton detailed this problem in ‘*De Gravitatione ...*’ (*ca.* 1684), criticising Descartes’ account of ‘space’ in terms solely of contiguity. Though this manuscript was first published only recently (Newton 1962, 90–156), the problems with equating space with contiguity relations have been there in Descartes’ *Principles of Philosophy* (1644), where sufficient difficulties in treating space solely in terms of contiguity relations can be brought out easily enough on the basis of Descartes’ own purported physics, which equates space and matter or body, without appeal to Newton’s physics; indeed, Newton’s (2007, 14–21) criticisms of Descartes’ treatment of space are based directly upon Descartes’ views, cited by Newton. The quite general significance of Newton’s criticisms of Descartes’ view of space and location was highlighted by Stein (1967, 184–7), and noted (with reference to Stein) by Laymon (1978, 412–3). Stein is succinct:

What Newton points out in the passage I have quoted is the need for what I called, in yesterday’s lecture, a “kinematical connection,” to allow one to discuss trajectories, velocities, and so forth. The point of central philosophical interest is that such a “connection” is indeed required for the formulation of the principles of mechanics, and that *it cannot*—as Newton quite clearly indicates—*be defined in terms simply of the spatial relations of bodies.* (Stein, 1967, 187/1970, 271)

Note that Stein speaks of a *kinematical* connection; kinematics is one branch of Newton’s mechanics, the other is dynamics, though the causal explanations dynamics provides of kinematical phenomena (motions of bodies) is not required, nor is appeal to it made, by Newton’s criticisms of Descartes’ conception of space solely as contiguity relations.

Contiguity relations do not suffice to specify any path of motion of any one particular within any array or field of particulars, if these latter, too, may or do move.

Whether the particulars in question are physical objects, tropes or sense data is *irrelevant* to the basic problem of specifying the origin, terminus and intervening path of any mobile particular, *if* space = contiguity relations (only).

Descartes realised that a body might have many different motions, depending on various points of comparison (*Prin.* II.31); he discusses the man walking on a ship which moves with respect to shore (*Prin.* II.24). Accordingly, Descartes distinguished a strict sense of ‘motion’ from the ordinary sense of motion:

Motion, in the ordinary sense of the term, is simply the action by which a body travels from one place to another. By ‘motion’, I mean local motion; for my thought encompasses no other kind, and hence I do not think that any other kind should be imagined to exist in nature. (*Prin.* II.24, CSM 1:233)

If ... we consider what *motion* ought to mean ... we may say that it is *the transfer of one piece of matter, or one body, from the vicinity of the other bodies which are in immediate contact with it, and which are regarded as being at rest, to the vicinity of other bodies.* (*Prin.* II.25; CSM 1:233)

Motion in the strict sense is to be referred solely to the bodies which are contiguous with the body in motion (*Prin.* II.28), and is to be referred only to those contiguous bodies which are regarded as being at rest (*Prin.* II.29). The reasons for this account lie in the difficulty of comprehending all the motions of a body, and in the tradition of viewing the earth as at rest:

Now all the motions will really exist in the wheels of the watch [which is in the pocket of the man walking on the ship, *etc.*], but it is not easy to have an understanding of so many motions all at once, nor can we have knowledge of all of them. So it is enough to confine our attention to that single motion which is the proper motion of each body. (*Prin.* II.31, CSM 1:236)

... if we wished to characterize motion strictly in terms of its own nature, without reference to anything else, then in the case of two contiguous bodies being transferred in opposite directions, and thus separated, we should say that there was just as much motion in the one body as in the other. But this would clash too much with our ordinary way of speaking. For we are used to standing on the earth and regarding it as at rest; so although we may see some of its parts, which are contiguous with other smaller bodies, being transferred out of their vicinity, we do not for that reason think of the earth itself as in motion. (*Prin.* II.29, CSM 1:29)

According to Descartes, true motions can only be identified or specified as motion with respect to contiguous bodies. Descartes explained motions of the planets with respect to the fixed stars (he carefully picked neither the Earth nor the Sun as points

of reference) in terms of their being carried by vortices in the subtle matter that fills the universe. This generates a problem. Given Descartes’s strict definition of motion as motion with respect to contiguous bodies, this entails that the planets, strictly speaking, do not move! They are stationary with respect to the contiguous bodies of subtle matter of the vortex which – what? – transports them around their orbits. Notice that Descartes does and must be able to make this last statement, that the planets move in their orbits, and that they move with respect to the fixed stars (*Prin.* III.26–29, *cf.* 140). However, neither of these statements can be made using Descartes’ official, ‘strict’ sense of motion; they require the ordinary sense of motion Descartes eschews. To have an astronomical theory at all requires a sense of motion which Descartes sought to replace with his technical, strict sense of the term (contiguity relations). Descartes’ focus upon motions only with respect to contiguous bodies makes most natural phenomena literally incomprehensible, indeed, *indescribable*, un-specifiable (Newton 1962, 92–5, 125–7/2007, 15–8)! As Newton (1962, 97–8, 129–31/2007, 19–20) points out (*inter alia*): If spatial locations and changes of spatial location are specified *solely* by reference to spatially contiguous particulars, at the end of most trajectories – specifically: any motions involving more than a few sequences of spatial continuity relations – the beginning point literally no longer exists!³

Phenomenalisms (*e.g.*, Mach 1922) and trope theories (*e.g.*, Williams 1953), too, must (re-)construct space and all, even local mid-scale, spatial phenomena on the basis of nothing but motions specified by reference solely to contiguous particulars. Whether these particulars be physical objects, sense data or tropes is irrelevant to this problem. Neither phenomenalisms nor trope theories can re-construct physical kinematics, the minimal type of physical theory admitted by empiricism.

Regarding the insufficiency of total state descriptions specified only by local contiguity coordinates to specify any *kinematical* connections, and commenting directly upon the passage quoted above, Stein notes:

For Newtonian space-time as I have presented it, this is just the remark that the mapping upon time and the Euclidean metric on each instantaneous slice of space-time do not determine a unique four-dimensional affine structure. (Stein 1967, 187/1970, 271)

Put otherwise, the temporal and spatial specification of each occurrence, forming a state description of the world at each time, and so for all moments of time, solely by

³ Indeed, even this may be too generous: If the initial point of departure = the specific set of contiguity relations any one particular has to those immediately surrounding it, as soon as that particular departs for other neighbours, *that* first set of contiguity relations vanishes.

contiguity relations, constrains but cannot *specify* the 4-D affine structure required to identify and to describe any motion (kinematics) – dynamic explanation quite aside. Whether what occurs at, or occupies, each coördinate point in space at any one time is a physical object, a trope or a sense datum is altogether an independent issue; this problem with the very concept of space, its intension, hold independently of any preferred examples (ontology) of spatial particulars. Complete, momentary state descriptions of the universe in terms of nothing but tropes and their spatial and temporal contiguities are insufficient for kinematics, whether astronomical, or tossing a wad into a bin. The trope theorist’s ideal description of the universe cannot account for (very) elementary kinematics; Williams was mistaken to claim that tropes and the relations of contiguity and qualitative similarity suffice, even in principle, to ‘account’ for the world we occupy and experience. (These same limits also hold of Carnap’s *Aufbau*, although these problems can only be specified precisely within the terms of the *Aufbau* with respect to time, because his rudiments for specifying spatial positions and relations are so very sketchy.) As the fundamental resources and strategies of trope theory remain unchanged (otherwise they would not *be* trope theories), subsequent versions fare no better than Williams’. This is yet another indication that (putative) ‘simplicity’ is neither a constraint nor an initial premiss; it is only a principle of choice between two otherwise equally adequate explanations – a rare circumstance!

The strength of Kant’s Critical epistemology in the *Critique of Pure Reason* lies in how acutely it identifies a host of sub-personal cognitive functions and a host of implicit and explicit cognitive judgments we can and do make with sufficient reliability, accuracy and justifiedness so that we can think at all using logic, and can use logical syntax and semantics in (referential, deictic) connection with whatever particular(s) we experience within space and time. All of these achievements result from thinking through this observation:

That which is presupposed in any and all knowledge of objects cannot itself be known *as* an object. (*KdrV* A402)

Kant’s Transcendental Deduction of the Pure Concepts of the Understanding is but one facet of his incisive critique of our human capacities for experience, cognition, action and judgment.

5 MODALITY IN SENSORY EXPERIENCE & PERCEPTUAL JUDGMENT, IN BRIEF

§3 noted the empiricist psychological modalities of customary conjunction and habitual belief, and how Kant contrasts to them the distinctive cognitive (‘epistemic’) modality involved in distinguishing between the tentative ‘this stone seems to me warm’ and the assertoric ‘this IS a warm stone’, and how such cognitive modalities are distinct to, yet parasitic upon identifiable causal modalities constitutive of perceptible particulars (above, §§3.1, 3.7, 3.14, 3.15). This pair of contrasts is central both to Kant’s Deduction of the Categories and to his demonstration in the ‘Analytic of Principles’ that we can only perceptually identify particulars which unto themselves have sufficient causal integrity to *be* discriminated from our various sensory experiences of them, or discriminated within and through their various sensory appearances to us, on any occasion in which we sense, circumscribe, localise and identify it (or them), *during* the period of time and within the surrounding context within which we perceive it (or them). This Kant demonstrates by examining the most general conditions particulars must satisfy *if* we are at all to be able to identify them, by distinguishing them from one another, from ourselves and from our sensory experiencing of them.

The contrast between Hume’s customary, merely psychological modalities and any actual human perception of spatio-temporal particulars is central already to Reid’s (1764) *Inquiry into the Human Mind, on the Principles of Common Sense*, in ways which help clarify and substantiate important, unfamiliar features of Kant’s Deduction. These brief remarks cite Reid’s second, corrected edition (1765), this being the closest available to me to the first edition (1764), which is known to have been available in Northern Germany and accessible to Tetens *and* to Kant, either in English or in French (1768).⁴ It precedes Kant’s *KdrV*, whereas Reid’s *Essays* (1785, 1788) are contemporaneous to its second edition. My concern here is not with historical routes of access and influence, but with systematic points regarding the sophisticated alternatives to Hume’s theories of ideas and of perception provided by Reid, Tetens and Kant. Some of the most important basic points are clearly and emphatically stated by Reid in the *Inquiry*. There are excellent studies of Reid’s epistemology and theory of perception; I claim no originality, but Hume’s empiricism remains such a common default presumption that it must be countered, and can be countered by selective

⁴ Reid (1764) was held in the Universitätsbibliothek Kiel (Sig.: K 2943); Reid (1768) was held in the Landschaftsbibliothek Aurich (Sig.: O 747 (1)), Universitätsbibliothek Rostock (Sig.: Ec-3122(1)), Eutiner Landesbibliothek (Sig.: Rc 247:1) and in Königsberg in Hamann’s library (Immendorfer 1938, 108); my thanks to Kuehn’s (1987, 168*n*.4) reference to Immendorfer, which I have again consulted.

focus.⁵

In reply to Hume's copy theory of impressions and ideas and his use of that theory to account for human perception and belief, Reid emphatically distinguished between mere sensory response to stimuli and perception (6.21, 301, 305), between the act and the object of perception (6.33; 6.20, 289, 290), and between the fleeting, scarcely conscious sensations involved in perception (6.3) and the (comparatively) sustained attention to perceived particulars and the (comparatively) perduring, stable character of the particulars we perceive. If these contrasts are typically unfamiliar to most of us, they are known (*e.g.*) to painters (6.3; 6.8, 165–7; 6.22, 315–6; 6.23, 328–9).

In the complex chain of events transpiring between any particular object and anyone who sees it (6.12, 200; 6.22, 301), Reid carefully distinguishes:

(*i*) sensation and (*ii*) perception (6.21, 301, 305);

(*i*) impressions upon our sensory receptors (our body) and (*ii*) any (mental) sensation of which we are aware (6.8; 6.22, 303); we are *not* conscious of impressions upon our receptors (6.8, 163);

(*i*) objects and (*ii*) their appearance to the eye (6.2, 123; 6.3);

(*i*) colours of particular objects and (*ii*) the *sensory appearances* of these colours to us in various conditions (6.4, 6.5);

within visible appearances of objects, (*i*) their colour(s) are quite different to (*ii*) the appearance of their extension, figure and motion (6.2, 124; *cf.* 6.5, 147; 6.8, 164);

(*i*) sensations as such and (*ii*) dimensional *images* of bodies or their qualities (6.5, 147, 148; 6.20, 288*ff.*);

(*i*) direction, distance and position (6.8, 161; 6.11, 191; 6.21, 308–9) *are* visible, though (*ii*) not (strictly speaking) sensible;

e.g., cataracts can reduce the retina to (*i*) mere sensory reception (6.8, 162), thus failing to indicate (*ii*) any direction, location or shape.

(*i*) sensory appearance and (*ii*) what is 'suggested' or indicated by sensory appearance (6.2, 123), what is inferred from it (6.2, 126, 128–9; 6.20, 297), judgments based upon it (6.3, 130), or (likewise) 'that knowledge of the objects of sense which is got by reasoning' (6.20, 297).

The (*i*) 'material impressions' upon our sensory receptors are effects upon *our bodies*, not (*ii*) sensory effects upon our minds. This point underscores Reid's emphatic distinction between (*i*) the act and (*ii*) the object (of perception), and his view that typically (*i*) visual sensations are sub-personal components or aspects of *acts* of (*ii*) visual perception of our surroundings:

It is necessary that the impression be made upon our organs, but not that it be known. Nature carries on this part of the process of perception, without our consciousness or concurrence. (Reid 1765, 6.22, 304)

A thousand such instances might be produced, in order to show that the visible appearances of objects are intended by nature only as signs or indications; and that the mind passes instantly to the things signified, without making the least reflection upon the sign or even perceiving that [*i.e.*, noticing] there is any such thing. (Reid 1765, 6.2, 128–9; *cf.* 6.3; 6.4, 137)

The hobby horse of Modern indirect theories of perception, the alleged 'resemblance' between sensory ideas and physical objects, is irrelevant: There is none (6.5, 148–9; 6.12, 202). Reid's careful attention to the details of sensation and perception, and his refusal to over-simplify them, result in an account of perception (6.3, 131–5; 6.5) directly converse to that of Russell's *Problems of Philosophy* (1912, Ch. 1), as is clear from Reid's remarks upon Berkeley (6.8, 168, 192, 194; 6.11, 197–8) and upon Hume.

Reid is emphatic about the utter inadequacy of Hume's official theory of ideas and its cornerstone, the 'copy theory' of ideas and impressions (6.8, 159; *cf.* *En.1* §§1–7, 12). Reid has no alternative to it, nor any account of how the 'language of nature' (4.2, 76) can *be* so much as learnt or understood by us. Under the headings of 'instinct' and of our 'natural constitution', Reid emphasises the pervasive natural regularities which enable us to be at all intelligent or cognisant (6.12, 208; 6.20, 297–8; 6.21, 304, 308, 6.24, 343). He is quite right that our failing to understand *how* these reliabilities hold or function, or specifically what *are* these regularities, is no proof that they do not hold, or that they are unimportant (6.12, 202; 6.22, 302). Reid repeatedly describes sensory perception as providing us *information* about our surroundings (6.1, 121; 6.3, 135; 6.7, 155; 6.20, 292, 293; 6.20, 321; 6.24, 331, 334, 341, 346). In this way Reid develops a reliabilist alternative to the sceptical (justificatory, 'access') internalism characteristic of so much Modern philosophy (de Bary 2002, *cf.* Nichols 2007, Copenhaver 2010).

Yet Kant (*Prolog.* 4:258–9) is right that Reid leaves much of the issue just where the sceptical Hume wants. Regarding induction Reid granted frankly:

⁵ Reid (1765) is cited by Ch.§, p.; lack of page number indicates the whole § is cited. His spelling and typography have been modernised.

However, we agree with the author of the *Treatise of human nature* in this, That our belief in the continuance of nature's law is not derived from reason. It is an instinctive prescience of the operations of nature, very like to that prescience of human actions which makes us rely upon the testimony of our fellow-creatures: and as, without the latter, we should be incapable of receiving information from men by language; so, without the former, we should be incapable of receiving information of nature by means of experience. (Reid 1765, 6.24, 346)

Kant (*Pröl.* 4:258–9) is also right that Hume's problem lies in challenging us to figure out how *are* human reason and reasoning possible, such that we can be at all cognisant?

Tetens' *Philosophical Essays on Human Nature and its Development* (1777) note many distinctions Reid highlighted regarding the psychological complexities involved in human thought, representation, feeling, sensation and judgment; that the *concept* of causality connotes more and other than psychological associations can provide; that relations cannot be reduced to those required by Hume's separability thesis (briefly, that any distinction requires real separability into numerically distinct instances); and that rational cognition involves modalities (of 'necessity') which cannot be accounted for by merely sensory, empiricist considerations.⁶ Tetens discusses the form of judgments, and the origins of the most basic concepts of the understanding; he questions Reid's reliance upon instinct, because knowledge requires objective modalities which contrast to merely subjective (psychological) modalities. However, Tetens' rambling *Versuche* (essays) lack Kant's logical acumen and inadvertently serve to underscore how crucial is the contrast between merely psychological modalities and the modalities involved in even the simplest forms of perceptual experience and knowledge – the 'dignity' (B124, *l.* 171) or status Kant notes is constitutive of causality or (also) of any assertoric judgment about what something IS, in contrast to how it may merely appear to oneself. Paradoxically, Tetens' *Versuche* miss altogether the prospect of any *a priori* justification of objective cognitive or (also) causal modalities, and yet prompted Kant (*GS* 23:57) to recognise exactly this prospect.

When Kant (*Pröl.* 4:258–9) credits Hume with challenging the powers of pure reason, *we* must avoid hearing merely a rationalist's rejoinder to empiricist scepticism. At the time he is reading Tetens' (1777) *Versuche* (*ca.* 1776–78), Kant notes that 'metaphysics' is not knowledge of objects, but rather of *principles* (*Refl.* 4853) – *inter alia*, principles by which objects can be known; he also describes 'metaphysics' in terms

⁶ I forego specific references to Tetens' ungainly *Versuche*; the points relevant here can be gleaned from his table of contents (to the first volume). Some sample excerpts are translated in Watkins (2009, 356–91), though these do not include those of Tetens's views cited here or above (§3). (Anyone excerpting Tetens (1777) deserves mercy.)

closely anticipating *KdrV* (*Refl.* 4849, 4851). Note in this regard that, although Reid speaks of sensory experience as providing us 'information' (*per* above), he has no account of information *channels*; Dretske (1981) has such an account, yet lacks an adequate account of information decoding or extraction. Dretske cleaves close to basic perceptual claims so as to maximise their obvious justificatory externalism (*cf.* Dretske 1998, 81–3, 87). Those basic perceptual claims, however, cannot suffice for the natural sciences, to which Reid rightly draws attention.⁷ In these regards Kant is correct that our understanding human knowledge requires a cogent Critique of human reason and reasoning.

This is not over-blown: Sensory-perceptual discrimination is modally rich! The apparent justificatory deficit of mere sensory appearances, stressed by Hume, as compared to any assertoric claim about how anything (in fact) *is*, instead marks the *insufficiency* of 'access internalism' in regard to sensory-perceptual justification! This Reid had clearly recognised; this is the insight of his justificatory externalism. Preoccupation with Kant's transcendental idealist contrast between noumena and phenomena has obscured Kant's development of a very sophisticated justificatory *externalism* regarding sensory perception, an externalism Kant details by his very sophisticated functionalist account of sub-personal cognitive functions (*KCE* §§30, 43) which must be fulfilled if ever we are to think in any instance 'I think ... [I now see that house there]' (above, §4.1). Whatever may be Kant's transcendental idealist distinction between noumena and phenomena, Kant has a very rich and subtle taxonomy of distinct factors pertaining to sensory-perceptual experience and its objects, marking many of the same distinctions Reid stressed. Kant distinguishes, *inter alia*, 'sensation' as the effect of an object upon the human capacity of representation (A19–20/B33–4); 'the matter of appearance' as that 'in the appearance' of some particular which '*corresponds to sensation*' (A20/B34; emphasis added); and the 'real of sensation' as 'a merely subjective representation' by which 'one can only be conscious that the subject is affected', and which 'one relates to an object in general' (A165/B207–8). In this provisional, analytical context, this 'object in general' is some as yet unspecified particular object perceived. Accordingly, the matter *of sensation* – its sensory quality or character, as distinct to the matter *of appearance* (the character of whatever appears within space and time) – can be generated by and within the subject as its qualitative sensory response to stimulation, although this sensory matter *relates to* some object empirically intuited. These distinctions all hold within Kant's 'empirical realism', which is also to say they hold independently of his transcendental idealism. Yet they

⁷ Reid (1765), 1.1, 3; 3, 65; 6.1, 120; 6.2, 194–5; 6.13, 231–2; 6.19, 281–5; 6.24, 350–1; 7, 370–83. (There are no §§ in Reid's Chs. 3 or 7).

raise the question, How if ever can or do we sort mere sensory appearances to us from any actual manifestations of spatio-temporal particulars?

Kant's answer puts paid to the empiricist dogma of non-modal observation terms; there are none, because perceptual discrimination is episodic – it takes some period of time and transpires within some spatial context – by which alone we can identify any actual perceived particular(s) (or states of affairs) by discriminating the present, actual case from *causally* possible alternatives, which we can only do by identifying spatio-temporal particulars with sufficient material (*i.e.*, causal) integrity that we *can* distinguish them from our own perceptual-motor activity – even if this activity be no more than how we can alter the direction in which we gaze, even momentarily (or, sub-consciously, the eyes' saccadic movements). Any and all such elementary perceptual discriminations require using – competently and accurately, if approximately, fallibly or implicitly – the principles of cognitive judgment Kant identifies and justifies in the 'Analytic of Principles', each of which derives from his Table of Categories; likewise their use is informed by those formal aspects of judging Kant identifies in his Table of Judgments. This is but a brief indication of how Kant, in the 'Analytic of Principles', articulates and justifies a host of constraints upon spatio-temporal particulars required so that we *can* at all perceive and identify any of them (*KCE*, Pt. 2). Kant's 'Refutation of Idealism' fulfills the aim already anticipated in the 'Deduction', that only if we *do* successfully identify some particulars by perceiving them (thus affording any instance of a synthetic unity of apperception), can any of us finite, dependent *homo sapiens* be sufficiently *sapientes* ever to think 'I think ...' about anything, on any occasion (*KTPR*, esp. §§62, 63).

Consider, then, how different might have been 20th-century Anglophone philosophy, if not for Berkeley Russell (1912) had instead opted for Reid? *Pace* Quine (1969, 72, *cf.* 74, 76), the Humean predicament is *not* the human predicament. This was demonstrated by Reid (1764). There may have been no occasion for Rorty (1979); Reid (1764) is much more perceptive, also about the metaphor of our 'mirror' of nature (6.6, 146). For his part, Kant did not neglect our embodied, perceptual-motor discriminations, nor their material preconditions, though Humean ego-centric proclivities have occluded Kant's incisive achievements.

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Immanuel Kant's 'Transcendental Deduction of the Categories' addresses issues centrally debated today in philosophy and in cognitive sciences, especially in epistemology, and in theory of perception. Kant's insights into these issues are clouded by pervasive misunderstandings of Kant's 'Deduction' and its actual aims, scope, and argument. The present edition with its fresh and accurate translation and concise commentary aims to serve these contemporary debates as well as continuing intensive and extensive scholarship on Kant's *Critique of Pure Reason*. Two surprising results are that 'Transcendental Deduction' is valid and sound, and it holds independently of Kant's transcendental idealism. This lucid volume is interesting and useful to students, yet sufficiently detailed to be informative to specialists.

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