Synthesis, Schmimagination and Regress

DRAFT 4

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-- Turin 5 May 2023. Kant, oltre Kant --

"The imagination is as it were the understanding's very own deputy in sensibility."

In the last section of the B-Deduction Kant alludes to a possible solution to the quintessential epistemological problem at the heart of the Deduction. He mentions a 'preformation-system of pure reason' (B167), which would contrast with the already mentioned ways in which knowledge can be seen to be possible. These two ways are either: (1) experience makes the concepts of objects possible, or (2) these concepts make the experience possible. Now since the concepts of objects at issue are a priori concepts (categories), they can't be derived from experience. Option (1) would be an 'objective' enabler of knowledge, whereas option (2) would be tantamount to a 'subjective' enabler of knowledge whereby 'enabler' should be understood in the proper a priori sense of enabling, not in any empirical sense. What Kant means by the latter is a kind of

'epigenesis' of reason: the categories genuinely 'contain the grounds of the possibility of all experience in general from the side of the understanding' (B167); two elements are noteworthy in this: the categories first form, engender, the experience of objects, and secondly, the categories are those grounds 'from the side of the understanding', hence they are subjective.

However, a third option that Kant considers is also a subjective enabler of sorts. It is important to see the distinction between the two possible subjective enabling grounds. This third option is likened by Kant to a 'preformation-system of reason', whereby the grounds for the experience or knowledge¹ of objects are already contained in us as subjective predispositions in such a way that our experience exactly matches the laws of nature. In this case, the categories would not be derived from experience (option 1), but would somehow be given with the experience but still in some sense be a priori, since they are inbuilt predispositions. But the problem with this middle way option is that construed in such a manner the categories lack objective necessity. The necessity that the categories carry is the fact that I'm so disposed to experience objects in accordance with laws of nature, but there is no way in which it can be determined, objectively, that, say, an event A is in actual fact causally connected to an event B, in nature and not just in me as a connection that I so happen to experience as such. The necessity at issue would be a *merely* subjective one.

But what is the difference between subjectively predisposed, *pre-formed* templates and categories that are epigenetically formed grounds of experience 'from the side of the understanding'? The important element here is the object-making feature of the categories as

¹ For Kant, experience (*Erfahrung*) is determinate perception tantamount to empirical knowledge (*empirische Erkenntnis*) (B148).

epigenetically generated forms of experience. The categories are not objective patterns given with the experience; on the contrary, they first make the experience possible. The subjective aspect is not a contrast to what is objectively given, as if it concerned merely mental or psychological processes, rather the subjective element first grounds the objective. Kant speaks of the categories as 'self-thought a priori first principles' (B167). The notion of 'self-thought' (selbstgedachte) principles is central here. This brings us to that other central concept of the Deduction, which will be the focus of the remainder of my paper: synthesis., synthesis being the quintessential subjective act that is central to the Kantian way of thinking about the possibility of knowledge.

A remark on why I started by discussing the last section of the B-Deduction. The reason why I do this is to highlight the contrast between a subjective and objective approach to the forms of cognition, which is important for appreciating an important element of synthesis. This has to do with Kant's general method of differentiation. Kant is not looking for essences, or objectively establishable facts or structures, but rather he wants to parse *possible* experience. What are the necessary composite elements of experience? What makes it first possible to have experience? In order to tease out these composite elements of experience, Kant's approach is one of distancing oneself, in some respect, from the immediate presence of the empirical object. This is a formal process of isolating the necessary building blocks of experience. This should not be misread—which often happens—as suggesting that each of the building blocks are relatively independent steps in an empirical or psychological process, which are to be regarded as indeed actually instantiated as stages of experience. The formal indications isolated by Kant are not, in fact, literally building blocks that can be

gradually added from the ground up. They are logically, transcendentallogically, or a priori, necessary conditions of experience that need to be fulfilled for there to be empirical experience, of what we actually have present before us, the object.

Synthesis

My story about synthesis is a confined one. I shall not talk about e.g. the relation between synthesis and the categories, which I believe is more intimate than most others would accept, and similarly, the relation between synthesis and self-consciousness. I have discussed these topics elsewhere in some detail (Schulting 2018). Also issues relating to the argument of the Deduction in particular, e.g. its so-called 'two-step' structure, and the role of space, and so the relation of the Deduction to the Transcendental Aesthetic will not be addressed (though space will feature in some way). These are all important connections to get the full picture of synthesis. Of course, I have views on these topics, but I'd prefer if we could concentrate on the issues I raise here. One can't tackle all of the Deduction and related themes in one talk or paper.

The concept of synthesis is first introduced at A77/B102–3. Kant links this to the 'spontaneity of thought', in contrast to the receptivity of sensibility. The 'action of synthesis' consists in 'going through, taking up and combining in a certain way the manifold' that is given in sensibility. This spontaneity of thought is specifically contrasted to the 'conditions of the receptivity of our mind, under which alone it can receive representations of objects'—these conditions being space and time as the pure forms of intuition.

Repeatedly, in the course of the Deduction, Kant emphasises this contrast of synthesis as an *activity* of thought (a 'self-activity', B130) that is itself *not* already contained in, or *passively* given with, the

manifold, in the same way as he speaks of 'self-thought' a priori principles that are separable from experience, as we saw earlier. This contrasts starkly with the forms of intuition, which as Kant says do 'lie ready for it in the mind' (A20/B34). Synthesis is something that is done to a manifold. This means that synthesis and manifold should not be confused in the sense that synthesis would be a condition on the manifold in intuition simpliciter.² This is an important point to which I will return. All too often one sees in certain interpretations that synthesis is taken to somehow first generate intuitions, or indeed that synthesis is also responsible for the generation of space (and time), that without synthesis one couldn't have so much as even a minimal empirical intuition of an object in space. This is all mistaken.

Not all of Kant's declarations about synthesis are unambiguous, and the fact that there are two reasonably different accounts, at least prima facie, in the A- and B-Deduction about the status, role and function of synthesis doesn't help either. A ubiquitous misunderstanding with respect to synthesis is that it is assumed that synthesis can be allocated, in different forms, to different faculties of the mind, as if indeed these were differentiatable functions that are independently instantiatable in different modes or parts of experience or cognition. Often it is thought that synthesis is a mere function of the imagination, and not yet a function of the understanding. This seems confirmed, for example, in the A-edition of the Deduction, in the famous Clue section, where Kant still writes that synthesis is 'the mere effect of the imagination', 'a blind though indispensable function of the soul', not yet involving the understanding (B103). But in his own copy of the Critique, Kant replaced 'soul' with 'understanding', suggesting that the

 $^{^{2}}$ For a good account on this, see Allais (2017).

A-edition version rested too much on a psychological conception of what's at stake with synthesis. The term 'soul' was however retained for the B-version edition.

This characterisation of synthesis is often used by commentators for supporting the view that synthesis is something in between, on the one hand, mere intuition or receptivity and conceptual determination or conceptualisation by the understanding, on the other. Apart from the fact that this view is contradicted by many other passages in Kant's corpus, which I can't all discuss here, more importantly, it is systematically impossible as it invites a vicious regress and contradicts the very idea of synthesis that Kant has in mind.

Now how does Kant define synthesis? He writes:

By synthesis in the most general sense [...] I understand the action of putting different representations together with each other [zueinander hinzuzutun] and comprehending [begreifen] their manifoldness in one cognition. (B103)

Two elements are conspicuous: synthesis is (1) an act of combination of representations and (2) a comprehension of the various representations as one. Synthesis is therefore not just a combination (often used by Kant as an equivalent for 'synthesis') but also a unification of representations, a grasping of the representations into an encompassing unity. This latter aspect is crucial, as we shall see. A third element,

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³ For detailed discussions of synthesis, see Schulting (2017, 2018, 2021), in particular about the intimate relation between synthesis and the categories Schulting (2021), ch. 8.

which Kant confirms in the immediately following after this definition, is that synthesis is (3) the 'first origin of cognition'.

Element (1) seems obvious: synthesising means to put together, combine representations. But this could in principle mean that synthesis is just that I combine, successively, a representation A with a representation B, representation B with a representation C, representation C with a representation D, etc. without this leading to a combination of representations A, B, C and D as combined into a whole. However, Kant explicitly says that the definition of synthesis that he provides includes the idea that the combined representations together form a unified representation. That means that with synthesis a representation A is combined with a representation B, a representation B is combined with a representation C etc., and representations A, B and C, etc. are thereby combined in one representation that shows the unity among the representations A, B, C etc. This thus excludes the reading of synthesis as merely indicating an aggregative lumping together of representations. It's not that Kant rejects the possibility of such a lumping together, but it is not part of his definition for synthesis. So whenever he talks about synthesis, such an aggregative lumping together cannot be what's at stake.⁴

Another possible reading that is excluded by the aforementioned definition of synthesis, is that synthesis were something that, as a kind of pre-formed pattern or configured arrangement, is given with the representations, similarly to the aforementioned categories as pre-formed dispositions. Conceptually, this is not excluded of course: representations could present themselves in such a pre-ordered

⁴ Allais (2017:32–3) rightly argues that Kant's synthesis is also not concerned with the problem of perceptual binding.

arrangement 'A, B, C,...' such that A, B, C etc. come as in a unity, i.e. the unified representation of representations A, B, C etc. ('A, B, C,...').

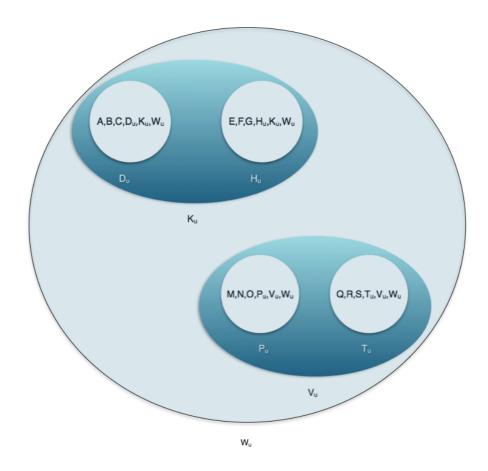
Synthesis and Unity

The problem however, with such a pre-ordered or pre-figured arrangement is that the manifold cannot thereby be comprehended as one representation. The unitary representation could in principle be given with the manifold representations, but it would be an additional representation that leaves unexplained how that additional representation is related to the manifold. In other words, the manifold itself could not present itself as unified even if it presented itself in a pre-arranged order that shows a kind of unity. The unity aspect of the manifold is not a sticky aspect of the manifold. This is comparable to the element of necessity in an experience, as we saw in the beginning of the paper, that were somehow pre-given, in a preformation type of system, with the experience as a kind of predisposition: it would never amount to an *objective* necessity that is an actual aspect of the object of experience, merely a subjectively felt necessity in the way that the various sensations imprint themselves on the experiencing agent. The same here: whatever unifiedness the manifold may show up all by itself, by being pre-given with the manifold of representations, it would not be the kind of unity that is comprehended as comprising the manifold representations constituting one cognition.

This can be illustrated in the following way. Suppose that unity were to come, or be given, with representations A, B, C, say. Let's call this supposition γ . The representation of unity (representation D_u) that unites the manifold 'A, B, C' would, on γ , be an additional representation to that manifold, in other words, just another

representation within the manifold. Now suppose there were another manifold of representations, 'E, F, G'. For this subsequent manifold of representations their unity would be a different representation of unity H_u that comes with the manifold. But H_u is not given with the earlier manifold, so if manifold 'A, B, C' and manifold 'E, F, G' are in turn to be united yet another representation of unity K_u is required, which however, on γ , should already be given with both manifolds (see fig. 1). But if this is the case, and unity is always already given with the manifold, then each arbitrary manifold should already contain every possible representation of unity that unites it with any other possible manifold of representations. Now even if all the unities were given in all of the unified manifolds of representations, the unity of these unities, i.e. the same unity that is contained within these unities, wouldn't be given. You only get a manifold of unities 'D_u, H_u, K_u, ...n', but not a real singular unity that unites all of the manifolds. And it is this possible unity of all possible manifolds that is pivotal in Kant's analysis of a priori cognition. It needs to be 'added', in a different sense than just being another representation, to the manifold from the outside, namely 'from the side of the understanding'. This is why Kant links this problem to the receptivity/spontaneity distinction: receptivity never gives the same unity, but only manifolds. Only spontaneity can, in virtue of a single original act, unify manifolds, and each time in the same way, by means of the same function of unification (cf. the Leitfaden section at B104–5).

Fig. 1



Unity and Manifoldness

Unity is thus not an element that is already given with the manifold. What's more, even manifold ness, the idea of being manifold, is not given with the manifold. We can see this in a pivotal passage in the A-Deduction. At A99, Kant writes:

Every intuition contains a manifold in itself, which however would not be represented as such if the mind did not distinguish the time in the succession of impressions on one another; for as contained in one moment no representation can ever be anything other than absolute unity. Now in order for unity of intuition to come from this manifold (as, say, in the representation of space), it is necessary first to run through and then to take together this manifoldness, which action I call the synthesis of apprehension, since it is aimed directly at the intuition, [auf die Anschauung

gerichtet ist] which to be sure provides a manifold but can never effect this as such, and indeed as contained in one representation, without the occurrence of such a synthesis. (underlining added)

This passage is loaded with Kantian nuggets, not all of which is relevant now. First, an intuition is always a manifold of representations, but the manifoldness of an intuition can first be represented, conceived of, only when time is applied to it.⁵ That is to say, on one reading at least, as such, an intuition containing a manifold of representations is nothing but an absolute unit, or, more precisely a succession of such absolute units, unconnected to each other other than in the way that the units succeed each other (suggesting a kind of sense data atomism). Only in the distinguishing of the time between the succeeding representations is the manifold distinguished as a manifold, namely as a manifold in which the units of representation can be represented as having some connection to each other as a successive manifold. This could mean either that outside synthesis, the manifold is not complex but just a succession of absolute units. Or, the manifold may in itself be complex, but it doesn't show its complexity out of itself. It remains undifferentiated. Only synthesis makes it possible to show the complexity of the manifold; this doesn't mean that the manifold is not complex in itself or that sensibility could not deliver representations simultaneously; rather the manifold as such presents itself in an

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⁵ I therefore strongly disagree with Onof's (2022:446) line of interpretation that 'inner sense has no manifold of its own' apart from synthesis.

⁶ See Allais (2017:39): 'Rather than showing that without synthesis we could not represent a distinct (single, aesthetically unified) perceptual particular,...Kant thinks that without synthesis we can *only* be presented with things as primitive, singular units: we are not in a position to grasp things as complexes.'

undifferentiated manner.⁷ The bringing to differentiation is what happens when a manifold is synthesised, which as per the definition of synthesis happens in that the manifold is comprehended and unified as such.

Note that synthesis does not just *unify* representations, but in that they are unified, it becomes first possible to *differentiate* them from each other, too. The plurality or manifoldness of the manifold is only first determinable in virtue of synthesis as an act of its unification. Unity and difference (or plurality) are mediated by the same act of synthesis. Synthesis is the bringing to differentiation, or the conceiving of the manifoldness of manifolds.

Synthesis and Intuition

Noticeable is that Kant writes that the synthesis is 'aimed directly at' the intuition. The synthesis doesn't generate the intuition containing a manifold, nor its form, nor does it first produce the manifold, but it produces the representation of manifoldness as applicable to the manifold in intuition. The intuition itself, as per receptivity, produces the manifold (cf. B160n.), but not the representation of the manifold as a manifold, that is, its manifoldness. This representation of the manifold as manifold, its manifoldness, represents at the same time its unity. The production of the manifoldness and unity of the manifold, as a concept pair, happens via synthesis. Some commentators differentiate between manifold and intuition, whereby the intuition is presumably first produced by synthesis, and the manifold not (or at least sensations aren't), but there is no good reason given in the text, or systematically,

⁷ Grüne (2017:574): 'Die Funktion der Synthesis besteht ... darin, die undifferenzierte Einheit komplexer sinnlicher Vorstellungen in eine differenzierte Einheit zu verwandeln.' See also Grüne (2009:158–61).

to think these can be separated from each other: Kant always speaks of a manifold *in intuition*, whereby the manifold is the empirical content of an intuition, of which space and time are the a priori forms. A manifold cannot be but the manifold *in* an intuition, which has specific necessary forms (time at any rate, and also space for intuitions that refer to outer objects).

What is important to keep in mind is that Kant makes it pretty clear here that synthesis doesn't generate the intuition as such, or the manifold that is contained in it, but is *gerichtet auf* the intuition. A synthesis that is aimed at the intuition cannot thereby, by means of itself, first produce the intuition. This sounds logical and natural, but very often commentators make it seem as if synthesis indeed first generates the intuition (either pure or empirical). This is especially the case when we talk about space and time as pure intuitions or forms of intuition. This is illustrated in the way that a passage at the end of A99 in the A-Deduction is ubiquitously read by commentators.

For without it [synthesis] we could have a priori neither the representations of space nor of time, since these can be generated only through the synthesis of the manifold that sensibility in its original receptivity provides.

Denn ohne sie [Synthesis] würden wir weder die Vorstellungen des Raumes, noch der Zeit a priori haben können: da diese nur durch die Synthesis des Mannigfaltigen, welches die Sinnlichkeit in ihrer ursprünglichen Rezeptivität darbietet, erzeugt werden können. (A99–100; emphasis added)

This passage illustrates that through synthesis we don't generate space as such, as one of the necessary forms of intuition or forms of receptivity, which first provides the manifold which we then determine, through synthesis, as forming an a priori representation of space (see Onof, forthcoming). It is clear from the above passage that receptivity is not produced (erzeugt) through synthesis, but if that's the case, and if the form of receptivity is necessarily space as pure form of intuition (of outer objects)—as Kant claims in the Transcendental Aesthetic—then how can synthesis first produce the form of that which provides it a manifold? Sensibility without the pure form of time (and space, for outer objects) isn't possible, which would mean on the conceptualist reading that sensibility itself requires synthesis, which is contradicted by Kant (B145). This is why the distinction between form of intuition and formal intuition (see B160n.) is so crucial. On any conflationary reading (Longuenesse 1998, Onof forthcoming), the distinction is meaningless, for such a reading suggests that synthesis produces the very form of receptivity, namely space as form of intuition, and hence receptivity itself, given that receptivity without space and time is nothing.⁸

⁸ Onof's reading of the distinction is somewhat more nuanced, but he still believes that figurative synthesis generates space as the form of intuition in such a way that there can't be an *intuition* in space without synthesis. Much hangs here on the definition of intuition. Onof seems to take intuition in a much stronger sense than I do, i.e. for him it seems that intuition is already a *determinate* intuition of a *determinate* object, whereas I take intuition to be the form in which *any* manifold of representations is presented, whereby time (and space) are the pure forms, and the manifold the empirical content of an intuition. For Onof, it becomes a problem how to explain how one can have a manifold of representations without there being an intuition, when any manifold of representations or sensations must at least have the pure form of time (inner sense). If he were to accept that any manifold in sensibility indeed does have the pure form of time, he would equally have to affirm, on his reading of intuition, that synthesis is a condition on sensibility or receptivity itself, which however is denied by Kant.

Synthesis in §15 of the B-Deduction

All the elements of synthesis that we have discussed resurface in the section that best captures the idea behind it, namely the introductory section of the B-Deduction. Kant writes there:

[A] 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 sein, wie das Subjekt affiziert wird. Allein die Verbindung (conjunctio) eines Mannigfaltigen überhaupt, kann niemals durch Sinn in uns kommen, und kann also auch nicht in der reinen Form der sinnlichen Anschauung zugleich mit enthalten sein; ... (B129)

[B] ...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 mancherlei Begriffe,, eine Verstandeshandlung, die wir mit der allgemeinen Benennung Synthesis belegen würden, um dadurch bemerklich zu machen, daß wir uns nichts, als im Objekt verbunden, vorstellen können, ohne es vorher selbst verbunden zu haben, und unter allen Vorstellungen die Verbindung die einzige ist, die nicht durch Objekte gegeben, sondern nur vom Subjekte selbst verrichtet werden kann, weil sie ein Actus seiner Selbsttätigkeit ist. (B130; underlining added)

[C] [D]er Begriff der Verbindung führt außer dem Begriffe des Mannigfaltigen, und der Synthesis desselben, noch den der Einheit

desselben bei sich. Verbindung ist Vorstellung der synthetischen Einheit des Mannigfaltigen. Die Vorstellung dieser Einheit kann also nicht aus der Verbindung entstehen, sie macht vielmehr dadurch, daß sie zur Vorstellung des Mannigfaltigen hinzukommt, den Begriff der Verbindung allererst möglich. (B130–1)

I have partitioned the quoted section, which is quite long, into three subsections. Subsection [A] confirms our earlier analyses that the manifold as such does not contain its connection or combination (cf. A120). The manifold as such merely contains 'nothing but receptivity', nothing 'other than the way in which the subject is affected', which means: representations are prompted in the mind in accordance with the form of time (though not: determined in time) and when it concerns objects of outer sense, the form of space. A sentence that isn't as clear in the English translation as in the German original is pivotal: the combination 'kann also auch nicht in der reinen Form der sinnlichen Anschauung zugleich mit enthalten sein.' This reminds us of the earlier discussion about a supposed preformation type system, whereby the categories would as it were be given with the experience. Synthesis or combination is thus not a predisposition inbuilt in the manifold, nor in the sensible intuition, nor even in the pure form of intuition. This latter qualification is particularly important for an assessment of the role of synthesis in the formation of space, space being one of the pure forms of intuition.

Secondly, in subsection [B] it is made clear that all forms of combination or synthesis are acts of the understanding, 'whether it is a combination of the manifold of intuition or of several concepts'. This is important to keep in mind since many commentators make it seem as if Kant allowed for a kind of synthesis which merely concerns a sensible

intuition, that is not a synthesis by the understanding, in contrast to, and independent from, a synthesis of 'several concepts'. We must think here of the distinction between figurative synthesis and intellectual synthesis. But this distinction, which Kant introduces at B151–2, should not be read as simply mapping onto the distinction between a synthesis 'below the line' (as McDowell [2009] puts it) in a objectively valid synthetic judgement, i.e. of the manifold in intuition, and above the imaginary line, i.e. of the concepts in such a judgement (fig. 2). It is not the case that it is just the combination of concepts in a judgement S is P that is a synthesis carried out by the understanding, whereas presumably, the underlying intuition is synthesised by something distinct, i.e. the imagination (synthesis speciosa). This is much too simplistic a portrayal of the role of synthesis in judgement and cognition.

Fig. 2

judgement	concepts	conceptual/intellectual synthesis	
intuition	manifold	sensible/figurative synthesis	

The passage also seems to contradict the earlier account of the threefold synthesis in the A-Deduction, where only the synthesis of the recognition in concepts can feasibly be seen as a synthesis carried out by the understanding (given that the understanding is a conceptual capacity to judge [A69/B94]). This raises the further question how this third presumably intellectual type of synthesis is related to the other two since Kant clearly says that the two first syntheses cannot be had

separably (A102), and suggests that the third is necessary for the others, otherwise 'all reproduction in the series of representations would be in vain' (A103). If then the threefold synthesis is compared to the twofold synthesis of the B-Deduction, it stands to reason to regard the figurative and intellectual syntheses as similarly 'inseparably combined'.

Another important element, which relates to the subjective enabler aspect in the last section of the Deduction discussed at the start of this paper ('from the side of the understanding'), is the stress on the 'self-activity' of synthesis, in contrast to the passivity or receptivity of sensibility. Synthesis is an act executed by the subject on the manifold. Nothing in the manifold is combined unless it is combined, actively, by the subject. This self-legislative characteristic is very much concerned with Kant's Copernican thought that nothing can be determined as objective that we didn't determine as objective ourselves. The objectivity of the object of experience is a function of our selfconsciousness, probably the most central thought in the whole of the Deduction. I don't want to dwell on this aspect of synthesis here—I have dealt with this extensively in other work—other than saying that synthesis is always and exclusively an action carried out by an intellect, an understanding self. This becomes important when we consider the idea that synthesis is 'originally unitary' (B130), and can't be distributed amongst distinct, independently operating faculties, for that would immediately raise questions about the unity of the self-legislating subject.

The last passage [C] seems at first blush confounding. It seems to suggest circularity: combination or synthesis is the *representation* of the

 $^{^9}$ At A103 Kant speaks of consciousness, but it is clear from the end of the passage that recognition in the 'concept' 'consists solely in the consciousness of this unity of the synthesis'.

very unity that first brings forth synthesis. But what Kant here means to say is that combination (or synthesis) and unity, and so representation of unity and unity, are equiprimordial, co-determining features of one multifaceted original act of synthesis of the understanding. A manifold is not unified unless it has been synthesised. Synthesis is the necessary and sufficient condition for the unity of a manifold in intuition. But at the same time, a manifold in intuition is not as given already unified nor, as we earlier saw, synthesised. Unity and synthesis are not preformed predispositions of the manifold.

'Unity' and 'combination' relate to 'manifold' asymmetrically. There cannot be unity without combination and vice versa, nor unity and combination without a given manifold. However, a manifold of representations doesn't eo ipso necessarily carry 'unity' and 'combination'. As Kant says, combination 'can never come to us through the senses, and therefore cannot already be contained [zugleich mitenthalten sein] in the pure form of sensible intuition' (B129, emphasis added). Unity and combination are 'products' of the subject's self-activity or 'spontaneity', enacted upon the manifold in intuition, in contrast to the mere receptivity of the manifold in intuition as such. They are not conditions on the receptivity of the manifold, in other words, unity and combination are not conditions on the manifold qua manifold, or on intuition qua intuition.

This doesn't mean, as is sometimes thought, that apart from the unity and synthesis a manifold must be chaotic, 'a chaos, a blooming, buzzing confusion', as Hoke Robinson (1988:172)—referring to William James—once put it. 'Unity' and 'synthesis' have a very specific, narrowly defined function: they guarantee the objective validity of the manifold in an intuition. The rationale behind the focus on synthesis is 'to draw attention to the fact that we can represent nothing as

combined in the object without having previously combined it ourselves, and that among all representations combination is the only one that is not given through objects...' (B130). So any kind of connectedness between the manifold that is given with the manifold—the particular arrangement in which representations are prompted in the mind, relative to how outer objects empirically affect the mind—is not a connectedness constituted by synthesis, as Kant sees it. Recall that the synthesis at issue is an original, necessary, a priori synthesis, not an mere empirical apprehending together of given representations. Synthesis guarantees objective validity of the manifold in an intuition, and concerns the foundational basis of possible experience of objects as well as the objects of experience, not the sheer presence or givenness of the manifold in an intuition.

The idea that synthesis is a condition on the sheer givenness of the manifold would also run counter to the dialectic of Kant's reasoning: synthesis is precisely that which cannot be encountered in sensibility for sensibility cannot provide the stable element of necessity that first establishes objective validity, neither empirically, nor via a preformation system of reason. It must be 'added' to it in virtue of an act of spontaneity. If that is the case, then ex hypothesi synthesis cannot be seen to be the condition on the manifold in an intuition simpliciter. To put this differently, a manifold of representations in an intuition, in inner sense, is as such unstable, permanently in flux, contingent. That which guarantees precisely the opposite, stability, necessity, permanence, i.e. synthesis, can then not be the condition on what is impermanent, 'forever variable' (A107), contingent and in flux qua its impermanence and contingency.

The manifold is a necessary condition for the synthesis to take place, but synthesis is not eo ipso a condition on the manifold. There is a further condition on the manifold for synthesis to be applicable to it: it is to be taken to be conditioned by synthesis insofar as the manifold is to be regarded as objectively valid, as to constitute an object. If synthesis were the condition on the manifold in an intuition simpliciter, Kant could have spared himself all of the arguments presented in this section, and could just have stated that synthesis is an inbuilt characteristic of the pure form of intuition, implying that any manifold is perforce a synthesised manifold. But he argues precisely against the predispositional, preformation idea of categorial determination of experience. 'Object' and 'objectivity' are not intrinsic characteristics of a manifold in intuition, hence synthesis and unity, which guarantee objectivity, must be 'added' to it (hinzukommen) for the manifold in an intuition to be synthesised and unified, and thus have objective reference.

Schmimagination and Regress

A priori synthesis is an original synthesis which is the foundation of objective experience. There is no further ground that grounds it. It's a regress blocker in the analysis of the possible grounds of experience. It's the basis for all possible analyses. In fact, as Kant says, analysis 'always presupposes it' (B130). Now Kant seems to be throwing a monkey wrench into his own analysis by introducing, in the A-Deduction, the threefold synthesis, which in the second step of the B-Deduction is more or less replaced by the notion of figurative synthesis or synthesis of the imagination (synthesis speciosa), which is there differentiated from the intellectual synthesis (the synthesis intellectualis). The majority of commentators have taken this, and especially the A-Deduction account, as an indication of a division of synthesis into separable faculties of the mind that can be seen as not just formally separable, but indeed as

independently operable functions, which can be parcelled out between the so-called non- or pre-conceptual and conceptual layers of cognition, respectively. It is indeed argued by many that e.g. the first two syntheses of the A-Deduction account, the synthesis of apprehension and the synthesis of reproduction in the imagination, relate to the sensible manifold in intuition in general, and in fact first generate the very intuitions, and then, in a second instance, the synthesis of recognition in the concept combines the sensible manifold under concepts in a judgement (though judgement is never mentioned in the A-Deduction) (cf. A78/B103–4, which seems to confirm such a reading).

Similarly, if we base our reading on the B-Deduction, it is often argued that figurative synthesis (the productive imagination) is a synthesis enacted upon the sensible manifold without this yet leading to a category-governed synthesis, or at any rate, to a conceptual determination that yields a proper judgement. Whereas a category-governed synthesis is a synthesis carried out by a judging subject, a non-category-governed synthesis such as, presumably, figurative synthesis is perhaps carried out by a lower-level instantiation of the same subject, but not as a category-applying judging subject. Or differently, the synthesis carried out in an intuition, prior to judgement, might be category-governed, but still in some sense be pre-conceptual (categories could be involved without empirical concepts being involved).¹⁰

In the literature there is a sheer abundance of variations and overlapping distinctions between non-category-governed and categorygoverned synthesis, between an 'intellectualist' and a 'sensibilist' kind of synthesis, syntheses that are intellectualist, i.e. carried out by the

 $^{^{10}}$ I don't think this reading is exegetically possible, but there are commentators who hold this view (see e.g. Griffith 2012).

understanding, but pre-conceptualist, a synthesis that is categorial but not yet conceptual (in the sense of application of empirical concepts in a judgement), etc. All these myriad fine-grained interpretative distinctions are contrived to accommodate the idea that synthesis must be equally distributed across sensibility and the understanding, and to fit the idea that not all synthesis must be seen as leading to a conceptualist view of cognition, that is to say, that nonconceptualist intuition must play an indivisible role in cognition that is not reducible to the understanding, or at any rate to a conceptual determination in judgement.

There is also the view—quite influential as it happens—that figurative synthesis is the *ground* or basis for a further possible intellectual synthesis (Longuenesse), even plural intellectual syntheses (Onof), that is, that the intellectual synthesis of concepts is 'built upon' a prior figurative synthesis of the manifold in a sensible intuition (Hanna 2008; Longuenesse 1998; Onof 2022);¹¹ herewith it is suggested (1) that intellectual synthesis is *logically* dependent on figurative

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¹¹ See my critique of Hanna on figurative synthesis and a so-called bottom-up account of synthesis (Schulting 2017:215ff.). I find Onof's idea about the 'duality of the figurative and intellectual syntheses' puzzling: 'The first provides *one* intuition by carrying out a synthesis of the contents of inner sense under the categories; the second carries out a synthesis of the manifold in this *one* intuition which makes explicit (i.e. brings to self-consciousness), through the categories, the unity of the intuition.' He likens his reading to that of Longuenesse (1998), who famously espouses a teleological reading of figurative synthesis as 'leading towards' the formation of judgements.

synthesis¹² and (2) that there could be an independent figurative synthesis of a particular intuition without this necessarily leading to an intellectual synthesis, or, only leading to an intellectual synthesis in a subsequent instantiation of the understanding's synthesising activity. (Emphasis is often put on the phrase 'its first application' at B152, suggesting that figurative synthesis is the understanding's first application, with further applications possible.)¹³ This immediately raises the question as to what are the (a priori) conditions of instantiation of the intellectual synthesis over above the synthesis speciosa.

Position (1) is prima facie odd given that intellectual synthesis is the more general kind of synthesis compared to figurative synthesis, as is clear from Kant's account in B151–2. How could the more general

¹² Onof writes: 'In terms of logical priority, it is the figurative synthesis which makes the intellectual one possible as it is the drawing of a figure that enables the concept of circle to be thought in the unity of the synthesis of this figure' (2022:449). Onof here conflates intellectual synthesis with empirical concept application. Intellectual synthesis concerns the application of the categories, not the application of empirical, including geometrical, concepts (B152). Onof is therefore mistaken to think that figurative synthesis is logically prior to intellectual synthesis, for the synthesis speciosa, which happens 'in accordance with the categories' (B152), is for the latter logically dependent on the more general form of the application of the 'mere categor[ies] in regard to the manifold of an intuition in general' (B151), namely the synthesis intellectualis. Synthesis speciosa can't happen in accordance with the categories if these categories don't already hold, in other words, if the intellectual synthesis hasn't already been instantiated. In fact, synthesis speciosa is the working of intellectual synthesis in sensibility. Onof and Longuenesse try to work around this problem by talking about the schemata of the categories being at issue, not the categories as such, a position I don't understand. One can't have schemata of the categories without, and thus before, the categories.

¹³ There aren't two stages of instantiation of a priori synthesis, first the intellectual synthesis, and then the figurative synthesis, let alone the other way around: presumably first figurative synthesis, in sensibility, and then the intellectual synthesis by the understanding (presumably by applying concepts). This will be the topic of the ensuing paragraphs.

kind of synthesis be *logically* dependent on what is less general? Moreover, figurative synthesis is said by Kant to be the 'effect of the understanding on sensibility', with the combination of the understanding being the *synthesis intellectualis*, so how can something A that is the *effect* of something B, say, be the *logical* ground of that of which it is the effect? If A is the effect of B, it cannot at the same time be the ground of B.¹⁴

At B164, in a significant passage, it is made clear that imagination rather depends on the understanding for the intellectual synthesis of the manifold, as much as it depends on sensibility for the manifold provided to it. Kant writes:

Now that which conjoins the manifold of sensuous intuition is imagination, a mental act to which the understanding contributes unity of intellectual synthesis, and sensibility, manifold of apprehension. (Meiklejohn)

Nun ist das, was das Mannigfaltige der sinnlichen Anschauung verknüpft, Einbildungskraft, die vom Verstande der Einheit ihrer ['ihrer' refers to 'der sinnlichen Anschauung'] intellektuellen

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¹⁴ To circumvent this worry, Longuenesse (1998) tries to read figurative synthesis in teleological terms as a *conatus* directed towards intellectual synthesis in judgement.

Synthesis [nach], und von der Sinnlichkeit der Mannigfaltigkeit der Apprehension nach abhängt. (B164)¹⁵

In other words, the imagination is rather dependent on the understanding for the intellectual synthesis of the manifold in intuition: it couldn't carry out its own 'Verknüpfung' without it, which makes sense given the fact that, as said earlier, the imagination is in fact 'the effect' of the understanding on sensibility. The imagination carries out its combinatory activity in the sensible manifold in virtue of the understanding's synthesis, or more precisely even, the imagination's combination (Verknüpfung) is the understanding's combinatory activity in sensibility. Imagination is as it were the understanding's very own deputy in sensibility. This implies also that intellectual synthesis first happens when figurative synthesis happens; there is no question of there being a possible intellectual synthesis in a first step of the process of

Now that which connects the manifold of sensible intuition is imagination, which depends on understanding for the unity of its intellectual synthesis and on sensibility for the manifoldness of apprehension.

Both seem a rather literal translation of the German text, but fail to capture the real meaning of the passage. The problem with the Guyer/Wood and esp. Kemp Smith is that their literal rendering of 'ihrer intellektuellen Synthesis' makes it seem as if 'ihrer' referred to the imagination—which would make no sense, for what could the intellectual synthesis of the imagination be?—whereas in actual fact it refers to Anschauung. Meiklejohn, whose translation is much more interpretative, bypasses this problem by showing that for the unity of the intellectual synthesis of the sensible manifold in intuition, the combinatory activity of the imagination depends on the understanding (given that the understanding is the synthesis intellectualis). This makes sense since imagination is the effect of the understanding in sensibility (B152).

¹⁵ Kemp Smith's translation is misleading here:

Now it is imagination that connects the manifold of sensible intuition; and imagination is dependent for the unity of its intellectual synthesis upon the understanding, and for the manifoldness of its apprehension upon sensibility.

Guyer/Wood isn't really an improvement:

synthesising, followed by figurative synthesis. Intellectual synthesis and figurative synthesis are two central aspects of the one act of synthesis, which by means of analytic unity of concepts and synthetic unity of manifolds in intuitions constitute an objective cognition, a judgement. A more complex view of the relation between figurative and intellectual synthesis would look like the one sketched in fig. 3.

Fig. 3

	concepts	analytic unity
judgement		intellectual/figurative synthesis
	manifold in intuition	synthetic unity

These portrayals of distinguishable, independent instantiations of synthesis fully misunderstand the purport of the Deduction, even the A-Deduction, which might seem to support such a view. More importantly, they misapprehend the nature of a priori synthesis. A priori synthesis is misread as if it concerned a mechanical, staged process of various kinds of combination of sensible representations. But what one doesn't see is that such a mechanical reading of synthesis immediately invites a regress problem. I'll come back to this in a moment.

First, it is important to recognise that synthesis is meant to bridge the gap between sensibility and the understanding. It is that which connects the two, which is not helped if the connection is itself divided again along the lines of the division sensibility and understanding, so that synthesis is seen to be equally apportioned to both of them. The idea, perhaps, behind these interpretations, is that

synthesis is an element that is shared by both of the combinatories sensibility and the understanding, such that it should not be seen to be the prerogative of either one. The understandable worry is that synthesis is reduced either to a capacity of intuition or, more likely, to a capacity of the understanding, such that synthesis is always regarded as a conceptualist operation, carried out by the understanding, making intuition either wholly unsynthesised or always under the governance of the understanding. Understandably, and rightly, nonconceptualists protest against such a conceptualist understanding of synthesis. However, as we have seen, Kant does say that synthesis is always an act carried out by the understanding. This makes it amenable to being seen as always involving judgement, given that the understanding is the capacity to judge, according to Kant (A69/B94). How then could there be a potential synthesis, a figurative synthesis, not involving judgement? This would be a possibility only if the understanding were uncoupled from judgement, which I think is exegetically doubtful (see Schulting 2021, ch. 8).

I have discussed interpretative problems relating to these readings of synthesis in detail in previous work (Schulting 2017, 2021). But there is a general, systematic problem with these accounts, which is so conspicuous that it is odd that nobody seems to pay attention to it, or seems to realise the problem (Hanna [2013]¹⁶ registered my critique of the regress problem [Schulting 2012, 2015], but to my mind he is not able to allay my worry about the vicious regress).¹⁷

The general problem is this one. Suppose that there is a non-category-governed, pre-conceptual kind of synthesis, figurative synthesis, say, and let's call it 'lower case's synthesis', in short (s). Suppose also that there is a category-governed, conceptual kind of synthesis, intellectual synthesis, say, let's call it 'capital S Synthesis', in short (S). Alternatively, the pre-conceptual kind of synthesis (s) could be a category-governed synthesis in some sense, as Onof and Longuenesse each argue, but let's keep things simple. Let us also grant that (s) is carried out exclusively by the productive imagination, in short (i), and (S) is exclusively carried out by the understanding, in short (u), so as not to complicate the question how we should evaluate the relation between the imagination and the understanding (for some, the

¹⁶ 'The first fundamental problem is what can be called the schmimagination vicious regress problem (see. e.g. Schulting 2012), and it says this. If the faculty of imagination is supposed by Kant to mediate between and also unify the dual faculties of understanding and sensibility for the purpose of forming objectively valid judgments, yet the imagination—and along with it, synthesis, spontaneity, and the objective unity of representational content—all correspondingly split into two essentially different kinds, one kind inherently associated with understanding and the other kind inherently associated with sensibility, then yet another fourth kind of faculty, as it were, schmimagination, is now needed to mediate between and unify the two kinds of imagination, synthesis, spontaneity, and objective unity of representational content, etc., ad infinitum. But this leads to a vicious explanatory regress. If, in order to avoid this explanatory regress, one adopts strong Kantian conceptualism, which reduces the sensibility to the understanding, then that undermines Kant's cognitive dualism of faculties, and with it, the basis of Kant's claim to be offering a genuine philosophical advance over Rationalism and Empiricism, So either one is stuck with a vicious explanatory regress or else one gives up Kant's claim to philosophical originality.'

¹⁷ [expand on Hanna's solution (the whole embodied human person as the background assumption for figurative and intellectual synthesis)]

understanding might still be involved in some pre-conceptual capacity). Now various interpretations hold that it is possible to have (s) without (S), so that only (i) is involved. This means that a given manifold in a sensible intuition (m) is synthesised (s) by (i), but is not synthesised (S) by (u). This could for example be a perception of the demonstrative kind This, here.

Now suppose that this particular manifold (m) is further taken up in a judgement, in which the demonstrative is asserted to be a particular object with particular conceptual features, a green armchair, say, in this way: This armchair is green. The judgement consists of a synthesis (of sorts) of concepts, (S), by the judging subject, by means of an analytic unity (concepts are always related to each other analytically) (see again fig. 3); that is, the empirical concepts $\langle armchair \rangle$ and $\langle green \rangle$ are attributed to an underlying x of which I have an intuition, i.e. to (m). However, the synthesis here concerns the combination of the concepts, not just to each other, but also, simultaneously, the connection of these concepts to the very sensible manifold (m) in intuition, in sensibility inwardly. This is precisely Kant's goal in the second half of the B-deduction (§21).

However, those who wish to distinguish between a pre-conceptual synthesis and conceptual synthesis would claim that at this juncture, regarding the relation to (m), merely a pre-conceptual synthesis is at issue. The sensible manifold (m) is first synthesised by (i) by means of (s), and only on this basis, a conceptual synthesis (S) by (u) might but need not be 'built on', as it is said, on (s). But how is this 'building on' done, and importantly, by what? What are the conditions for the instantiation of (S) over above (s)? We must recall that these conditions cannot be empirical because we're dealing with 'self-thought a priori first principles': this holds for (s) as well as (S) (B151).

In other words, how do the pre-conceptual synthesis and conceptual synthesis connect such that we get a judgement armchair is green, based on the evidence of an empirical intuition of an armchair and the colour green? It can't be (i) nor (u) that combines (s) and (S), for that would mean that one, and only one, of the connectors that is responsible for only one kind of synthesis is itself, at the same time, also the connector of the connectors while it itself is also one of the combinatories, which is impossible. But, if it can't be (i) or (u), which act or agent of synthesis is then responsible for the combination of (s) and (S)? There must be a higher synthesis than that carried out by (i) and (u). Or indeed, as Hanna (2017) named it, there should be another, higher kind of imagination, call it 'schmimagination' (shm-i), that connects the various kinds of synthesis carried out by (i) and (u) at the fundamental level. This invites a vicious regress (R) because if (i) is an a priori kind of synthesis and (u) is an a priori kind of synthesis, and schminagination is another, higher kind of a priori synthesis, then the question is how the higher kind and the lower kinds connect at the fundamental a priori level, and so forth (see fig. 4).

Fig. 4

judgement	concepts	conceptual/intellectual synthesis (S) (U)	R (shm-i)
intuition	manifold (m)	pre-conceptual/sensible/figurative synthesis (s) (i)	

But there is of course no such higher kind of imagination.¹⁸ There simply is no synthesis higher than the original synthesis that is the synthesis as defined by Kant in §15 of the B-Deduction (and earlier in §10), a function of the understanding, even when we look at the pivotal passage in the second-step argument of the B-Deduction, where it is made clear that the imagination is the 'effect' of the understanding in sensibility.

Synthesis and Identity

Those stressing the existence of a pre-conceptual (or pre-categorial) synthesis can't explain how the combination of (s) and (S) happens in an actual judgement. In the famous *Leitfaden* passage at B105, Kant is clear about the fact that it is

the same function that gives unity to the different representations in a judgment also gives unity to the mere synthesis of different representations in an intuition, which, expressed generally, is called the pure concept of understanding. The same understanding, therefore, and indeed by means of the very same actions through which it brings the logical form of a judgment into concepts by means of the analytic unity, also brings a transcendental content into its representations by means of the synthetic unity of the manifold in intuition in general... (A79/B104-5, underlining added)

¹⁸ In his early account of Kant, in *Glauben und Wissen*, Hegel tries to frame imagination as the higher kind of synthesis by identifying the figurative synthesis or productive imagination as Reason itself that connects sensibility and the understanding at the fundamental level. He is able to do this only in virtue of uncoupling the imagination from the understanding, which Hegel regards as a derivative form of cognition compared to Reason (see Schulting 2017, ch. 8).

The identity, sameness, that Kant stresses here, of the function or actions that synthesise both the concepts that form the logical form of a judgment (the syntactical form S is P), and those very same actions that put content into a sensible manifold, i.e. the unification of the manifold, is often downplayed in readings that stress the existence of a pre-conceptual synthesis (s) and strongly differentiate between the imagination (i) and the understanding (u). These readers take the formal distinctions that Kant introduces in too much a quasi-ontological fashion, as if they indeed concerned independently operating faculties of the mind. Such psychologising accounts lead inevitably to regress issues about how these faculties of the mind are related to each other given that the capacities at issue are all a priori and original acts of the mind, and together constitute the foundation of cognition. How can ontologically distinct and independently operating capacities all be a priori and original unless there were an overarching even higher original capacity that connects all at the fundamental level? What constitutes the *identity* of the understanding and the imagination if we consider the fact they establish cognition only jointly? Dualist accounts that stress the separability of sensibility and the understanding, and the various kinds of synthesis and different stages of cognition cannot explain the crucial identity claim at the heart of the Deduction.

As we have seen before, the manifold in an intuition is not per se, as such, synthesised, independently of the way it is related to the understanding, in a judgement. Synthesis is not 'zugleich mit enthalten' with the manifold nor in the pure form of intuition, as Kant says clearly (see also B145). (This means that interpretations, such as Onof [forthcoming], that argue that the manifold in an intuition or in inner

sense doesn't exist prior to synthesis, 19 namely that figurative synthesis first brings about pure intuition, are in conflict with Kant's explicit statements.) That pure intuition does not as such require synthesis makes sense because we must look at intuition from the perspective of the synthesising subject, the judging, understanding subject who has a cognition of the sort This armchair is green, from the side of the understanding, as Kant calls it, and from this side, the intuition is to be considered synthesised. Synthesis is something the subject does to the manifold in intuition, so it should be considered from the subjective perspective, not as if it pertained to the manifold absolutely, in a realistically objective sense. The combination is an act of spontaneity of the subject, and concerns the taking of the manifold as an object. The manifold in intuition is synthesised insofar as a cognition or a judgement of the sort This armchair is green is asserted, and this synthesis of the manifold takes place at the same time as this cognition is asserted or the judgement is made, not prior to nor independently of it. The sensible manifold in intuition is therefore not synthesised in an absolute sense, but under a particular condition, namely to the extent that it provides an object for cognition, insofar as the intuition forms part of a determinative judgement. The jointly combinatory activity of the understanding and the imagination provides the foundational

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¹⁹ '[I]t is through the synthesis that the manifold that is synthesised is first intuited. The manifold is therefore best described as non-existent prior to synthesis and as first actualized in a formal intuition of space' (Onof, forthcoming). For Onof, the manifold prior to synthesis is merely a set of possibilities, given by the form of intuition, but it itself is not an intuition. This means that what is given in the manifold cannot be an intuition, even an indeterminate one, of some real object (i.e. an object other than an imaginary mathematical object). One of the problems for this reading is how to explain how intuition, for Kant, is supposed to provide real possibility in virtue of an intuition's immediate relation to real given actual objects (immediacy being one of the definitional characteristics of an intuition); synthesis surely doesn't provide the immediacy.

background behind which no further regress into the grounds of knowledge can be found: the joint foundational role of the understanding and the imagination, as the synthetic activity of the cognising self, is what establishes the shared ground between sensibility and understanding. This ground must not be further shared out *between* sensibility and the understanding on pain of a regress in the explanation of the grounds of cognition.²⁰

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