Latent memory: An extrapolation of the structures of memory at work in Kant's "Critique of Pure Reason" (Immanuel Kant).

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Latent Memory:

An extrapolation of the structures of memory at work in Kant's Critique of Pure Reason.

by

Michael Bruder

A Thesis
Submitted to the Faculty of Graduate Studies and Research
through Philosophy
in Partial Fulfillment of the Requirements for
the Degree of Master of Arts at the
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Abstract

The following thesis is an attempt to find a role for the faculty of memory in Kant’s account of the structures of consciousness in the Critique of Pure Reason. The very core of Kant’s Critique of Pure Reason is the importance of an unchanging structure of consciousness to which thoughts and experiences can be attributed across time: the transcendental unity of apperception. If it is true, as I maintain, that Kant’s project is fundamentally an epistemological, rather than metaphysical one, it follows that the anchor of this project shall be the subject, as one who can know his world in a coherent fashion. Our knowledge of the world, and of ourselves as meaningfully involved therein, depends entirely upon our ability to self-ascribe events and experiences. This ability cannot be gleaned from a theoretically ‘raw’ experiential base, for there would be no anchor or reference point from which to begin such an epistemological project. It is the productive imagination which provides laws of affinity according to which it is structurally possible to order representations or images which are subject to the form of time (even a past time) in intuition, such that they can be known by the same consciousness as belonging to it, even as that empirical consciousness changes across time. This thesis attempts to demonstrate the transcendental productive memory is in fact a transcendental structure of memory, and that this reading of Kant is bourn out through a subsequent analysis of the Schematism chapter, and the chapter on the Principles of Understanding.
Dedication

This thesis is dedicated to my family, Aurora Wells,

and Professor Jeff Noonan.

Without their respective support, encouragement,

and direction, this thesis would not have been possible.
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List of Abbreviations

**Allison96**: Idealism and Freedom; Henry E. Allison. 1996.

**Allison83**: Kant's Transcendental Idealism; Henry E. Allison. 1983.


**KS**: A Commentary to Kant’s ‘Critique of Pure Reason’, Norman Kemp Smith. 1962.

Life, the human world, and the experiences thereof are only possible in so far as there is a self for whom these experiences are meaningful. The possibility of a meaningful relationship with the world, and hence a meaningful life, hinges upon our ability to know ourselves as relevantly engaged in that relationship. This engagement cannot come after the fact of constituted experience, but, for it to be meaningful as mine, must be constituted in its very structure by the role I have to play in its formation. Any investigation into the possibility for a human experience must therefore involve an account of the necessary structures of the individual for whom experience is meaningful as such. For, an experience of which no one is aware could hardly count as experience at all.

In the course of the Critique of Pure Reason, Kant encounters precisely these considerations as he comes to give an account of the possibility of human knowledge and experience. I follow Henry E. Allison in maintaining that Kant’s project in this text is fundamentally epistemological rather than metaphysical (Allison-96, xv). For, as Kant writes in the preface to the first edition, regarding the deduction of the categories: "For the chief question is always simply this: what and how much can the understanding and reason know apart from all experience? not: how is the faculty of thought itself possible?" (CPR, Axvii). The question is of the relationship between a knowing subject and possible experience. The issue of the relation between subject and experience arises for Kant, in the Critique of Pure Reason, with the deduction of the categories because the application of the concepts of understanding will necessarily involve a subject for whom experience
can count as such. Or, as Allison writes, the deduction of the categories is to demonstrate that "the categories function to make nature possible. Since by 'nature' here is meant the totality of appearance or objects of possible experience (*natura materialiter spectata*), this is really equivalent to demonstrating that they make experience possible" (Allison-83, 159.). The demonstration of the forms of intuition made no such claims upon Kant's analysis. In other words, Kant could proceed with his account of the structures of possible intuition, in the transcendental aesthetic, by referencing a merely abstract subject because the forms of intuition, while essential, are only the prerequisites for a knowing subject for whom a meaningful world is possible, they are not sufficient conditions in and of themselves. The transcendental analytic however, with the deduction of the categories of the understanding, signifies a (more or less) complete account of the structures of possibility for a knowing experience in the world. It is thus, at this juncture, that a concomitant account of the possibility of an experiencing subject is necessitated.

Just as Kant takes as his point of departure in the *Critique of Pure Reason* the fact that we make synthetic *a priori* judgements, and sets, as his goal, the explication of how they are possible (CPR, B19), so too we can think of the deduction of the categories as the transcendental account of the possibility of human experience. So it is that, in attempting to give a transcendental deduction of the pure concepts of understanding, Kant finds it necessary to give an account of the transcendental subject. That is, a demonstration of the a priori necessity of the concepts of understanding requires an account of the possibility of a unified subject in the service of whose experience the concepts are involved. It is at the juncture where Kant moves from the representations made possible by pure intuition, to knowledge of those representations, that the knowing subject must be introduced. In a system which is primarily epistemic in its project, the
unity of a transcendental subject is absolutely foundational. The possibility for the
employment of concepts which are not derived from experience and yet are the
constituting elements of experience, needs to be grounded in a subject, as one for whom
any possible experience can be meaningful as such. That is, there is a need for a
demonstration of the subject which cannot be derived from experience, for that subject is
the very possibility of experience. This is the a priori necessity of a unified, unchanging,
self-consciousness, or in Kant's terms, the transcendental unity of apperception. The
general contribution of Kant’s Critique is to epistemology is to demonstrate a middle
ground between the poles of rigid empiricism and abstract idealism, such that structures
of consciousness can be found to have objective validity while remaining essentially
subjective determinations.

My own contribution consists in showing that, not only is an account of the
subject necessitated by any attempt to deduce the categories on Kant's terms, but also,
that the structures of this transcendental subject are primarily temporal in their
constitution and functioning. A priori structures of possibility for an empirical subject
must involve a temporality which is ordered with a complexity beyond that of the forms
of intuition, if the understanding is to be able to know an object, as an object of
experience. It is the position of this paper that the transcendental imagination, or
productive imagination, is the temporally synthesising ground which renders conscious
experience possible. As Allison also notes: “Kant links the unity of apperception, and
with it the categories, to time (§24). This linkage turns on the connection of both with the
transcendental synthesis of the imagination, which is the synthesis through which space
and time are unified and determined” (Allison-83, 159). I will draw out the importance of
the pure, or productive, imagination in its role of grounding apperception and then
attempt to show that the temporal ordering which this synthesis achieves is synonymous with what could be termed a transcendental structure of memory which is needed as the possibility for the coherence of experience.

Once the task of establishing the necessary structure of human consciousness is accomplished, it is incumbent upon Kant to show how such a priori structures are applicable to the world of appearances. The main problem for this task is that the pure concepts of the understanding are completely heterogeneous with objects of appearance; a mediating ground is required. This ground is found in time, or more specifically, the temporal determinations of the schemata. I shall show in what follows that, just as the transcendental unity of apperception relies upon a transcendental structure of memory, so too the temporal determinations of the schemata are determinations which, as products of this transcendental memory, accomplish the possibility for a past of recollection and retention as the necessary ground for human experience.

The final chapter of this thesis shall be dedicated to an examination of the Principles of Understanding as the explication of the necessary characteristics of any possible experience. I shall argue that we find there an elaboration of experience as characterised by the past, and constituted by the work of transcendental memory. Our knowledge of the world, and of ourselves as meaningfully involved therein depends entirely upon our ability to self-ascribe events and experiences. This ability cannot be gleaned from a theoretically ‘raw’ experiential base, for there would be no anchor or reference point from which to begin such an epistemological project. There is a significant lack of material in the secondary Kantian literature dealing with memory in the first Critique. It is the position of this thesis that there must be a structure of
consciousness which makes the attribution of experiences to a self through time possible, and that this structure is none other than that of memory.
Bibliography, Introduction


Chapter One:

Transcendental Imagination and the Possibility of Memory

A Preliminary Note on Method:

A note of explanation is first required regarding the manner in which I will proceed here. In the tradition of Kantian analysis there exists an expository trend of preferring the deduction of the categories as presented in the second, or 'B', edition of the Critique. While there are, no doubt, ample reasons for this if the aim is to explain Kant's project as a whole (not least of which is the fact that Kant himself preferred it), my specific purposes are better served through an analysis of the deduction as presented in the original or 'A' edition. It is in this first edition of the Critique that we find a more thoroughgoing account of the processes by which Kant arrives at the constitution of the transcendental subject. The detailed description of the three syntheses in 'A' affords greater insight regarding the elements which Kant deems necessary for the structure and functioning of a transcendental subject. Allison, in preferring the B deduction for his own exposition cites, as his reason, that it is in the B deduction that "the argument is structured in such a way as to make it evident that the central problem is the demonstration of a connection between the intellectual and sensible conditions of human knowledge" and that, while this is also the case (overall) with the 'A' deduction, "this is largely obscured by the way in which he presents his argument there" (Allison-83, p.133). However, the way in which Kant presents his argument in the first edition is what, perhaps at the expense of clarity for the project as a whole, elucidates the necessary structures of possibility for an experiencing subject. It is precisely the details of these
structures which are the concern of this paper. Allison himself, while preferring the B
deduction overall, still agrees with my opinion regarding the significance of the
productive synthesis of imagination: “the key move, the very locus of syntheticity in the
B-deduction, occurs in §24 with the appeal to the transcendental synthesis of the
imagination” (Allison-96, p52). I maintain that we find a better account of the necessity
for, and constitution of, this transcendental synthesis in the ‘A’ deduction.

I shall treat of the 'A' deduction, first, by giving a very brief overview of the
deduction to show Kant's general purpose, then, by following it up with a more detailed
analysis including some of the relevant scholarship in the field as represented by Allison,
Guyer, and Miller.

*Summary of 'The Deduction of the Pure Concepts of Understanding'*

*as in the First Edition pp121-150:*

When we come to the deduction of the pure concepts of understanding, the task
that is set before Kant is to establish, not *that* there exist pure concepts of the
understanding, (since their existence was proven in the metaphysical deduction,) but *how*
these concepts make experience possible. In the first section of the original deduction we
find the subjective grounds for the possibility of experience. These grounds are
composed of three different synthoses leading to the unification/ combination of
representations in objects that could be known by consciousness. An a priori concept that
did not also relate to experience would be merely the empty form of a concept and not
something through which anything could be thought. Thus, in so far as these concepts are

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a priori, they are not derived from experience. However, if they are to be the condition of possibility for a conscious experience then these concepts must not only be able to relate to objects, but make objects possible for us.

In the Transcendental Aesthetic Kant established that all representations, whether inner or outer, are subject to the form of time, and that time is the form of inner sense. It is in our intuition that we find the unification of the manifold within a single representation. This synthesis, which unifies the manifold of intuition, Kant entitles the synthesis of apprehension in intuition; it is a primary condition of human knowledge. Without the synthesis of the myriad possible aspects of a representation, there would be no coherent representation to which a concept could be applied, and hence, no meaningful experience.

The second synthesis follows logically from the first. Having established the possibility for the apprehension of an object (a unified representation in intuition), it must be possible for this apprehension to occur multiple times for the same object. The question is: how could we know it as the same object? The experiential world makes sense to us partly because objects do not radically change form before our eyes, they follow certain rules in terms of their appearance to us. We must be able to reproduce to ourselves previously intuited objects, as well as the sequences in which these objects were intuited. The consistent accompaniment of certain representations with others is a rule inferred empirically but which is made possible by an a priori synthetic unity of appearances. This is termed the synthesis of reproduction in imagination, and necessarily determines the connections between empirical representations. This includes both the possibility for the experience of empirical rules like causation, as well as the reproduction of a series of events linked only by my experience of them. Here we see the beginnings
of how memory is implicated in Kant’s account of the possibilities of knowledge. I can link representations (or events) with each other only if I remember the representation (or events) in order to connect it, according to a rule, with another. The ‘re’ in both representations and reproductive imagination, imply a repetition which is possible only in virtue of memory. The reproductive imagination is that synthesis which facilitates the association of ideas, sensations and memories. For example, it is the work of reproductive imagination which, upon smelling peanut butter cookies, reproduces a memory of my Grandmother’s baking. These representations are associated in my consciousness according to a rule of synthesis supplied by reproductive imagination. But we are still at the level of the empirical with reproductive imagination and must await an account of productive imagination to fully understand this implication.

The third synthesis is that of recognition in a concept. Establishing the previous two syntheses is useless unless we are capable of recognising a representation as the same as one we have encountered before. We must be able to consciously recognise our thought for knowledge to be possible. Otherwise we would be condemned to rethink every thought of an object as though it were for the first time. Further, there could be no combination of representations since the unity required to maintain a connection would be absent. There would be only successive disjointed impressions (that could not even be known as successive). It is consciousness that unifies the intuited, reproduced manifold into a concept. This consciousness is the common element to all three syntheses and its unity is the sine qua non of knowledge. These different synthetic representations are not inherently related in any way, nor can the necessary unity of consciousness be derived from these syntheses, for it is presupposed by them. We are thus led to the a priori necessity of the transcendental unity of apperception. Empirical self-consciousness has as
its content an ever changing array of phenomena, but the condition for the syntheses that render knowledge possible is uniform throughout any possible human experience; this is the role of transcendental apperception.

Having established the three subjective sources of knowledge (sense, imagination and recognition), Kant endeavours to give an objective deduction of the pure concepts of the understanding and the transcendental unity of apperception. The point of departure for this deduction is the point of convergence for the representations corresponding to the three subjective sources of knowledge: pure apperception. The syntheses of apprehension in intuition, reproduction in imagination, and recognition in a concept all serve to unify representations, but do so for a consciousness. Representations are irrelevant unless they can count as possible objects of consciousness; this is the only possibility for knowledge. It is a priori necessary that there be a self identical consciousness for whom there are representations. Representations are possible only in so far as they occur within a consciousness unified in time. This principle is true a priori and is what makes possible the synthesis of apprehension in intuition. Only in so far as the structure of a unified consciousness does not alter across time can apprehension provide unified objects of intuition for it. If this were not the case, it would not follow necessarily that objects of intuition could be objects for consciousness. In other words, empirical consciousness changes across time, but a unified unchanging structure of consciousness is required in order that the intuition of objects can count, as so intuited, by the same consciousness. Thus, the transcendental unity of apperception is the condition of possibility for the synthetic unity of the manifold.

The second synthesis, that of the reproductive imagination, can be seen to rest upon empirical grounds since it requires something to reproduce. However, since it must
be possible for representations to be related to consciousness, the synthesis of their unity must have a transcendental, a priori ground, beyond the empirical basis of reproduction. This transcendental ground is the productive imagination, which is a transcendental unified synthesis in so far as it concerns the a priori possibility for the combination of the manifold and thus renders the relation to the unity of apperception possible. While the reproductive imagination supplied the rule of synthesis by which I associated peanut butter cookies with my Grandmother’s baking, the productive imagination ensures that I associate this association itself, with myself. That is, the productive imagination ensures that, both, I do not mistakenly associate those cookies with something that has no relation for me (i.e. jelly-fish), and that I always associate these representations as mine. The reproductive imagination makes possible the association of actual representations, the productive imagination makes possible a consistent and meaningful association between representations and guarantees that I shall associate these representations as belonging to me. The reproduction of imagination must function according to a rule, so that one representation is determinately connected rather than another; Kant terms this the association of representations. The objective ground for the reproductive imagination’s rules of association is the productive pure synthesis of imagination. Finally, just as in the previous deduction, the relation of the unity of apperception to the reproductive synthesis of imagination yields the understanding, so here the relation of the transcendental unity of apperception to the transcendental, productive imagination is pure understanding. There are pure modes of understanding which relate to all appearances possible for human experience. These pure modes are the categories and through them, as synthetic principles of experience, appearances are given a necessary relationship to human experience.
Just as the understanding is the result of the unity of empirical apperception in relation to the synthesis of imagination (reproductive), so pure understanding is the relation of the unity of pure apperception to the transcendental synthesis of the imagination (productive). We know that every appearance contains a manifold, and that the combinations thereof presuppose, in us, an active ability for synthesis; this synthesis is entitled the imagination. In order to bring the manifold of intuition into an image, the synthesis of imagination must also be able to apprehend images as previously synthesised. Further, these representations could be possible objects of knowledge only if they were reproduced in a consistent and coherent fashion, that is, according to a rule. This rule following, or association, is thus a necessary presupposition for the possibility of experiential knowledge. The particulars of the synthesis of the imagination are yet in the realm of the subjective and empirical. The unity of association however, presupposes an objective ground; only thus could appearances fit coherently into the web of human knowledge. As Kant writes: “it is precisely because I ascribe every perception to one consciousness that I can say of each perception that I am conscious of it” (CPR, A122). The imagination, as the faculty of an a priori synthesis, is productive. Here we find the necessary, and not merely empirical, unity of synthesis of the manifold. The formal connection and unity of the representations (as their very possibility) must precede the actual instantiations of them empirically. Concepts of the understanding function by relating the manifold to the unity of apperception, but only through imagination can concepts relate to sensible intuition. Thus pure imagination, conditioning all a priori knowledge, is a fundamental human faculty; it is the connection of the manifold of intuition with the necessary unity of apperception; it mediates sensibility and understanding. Finally:
Actual experience, which is constituted by apprehension, association (reproduction), and finally recognition of appearances, contains in recognition, the last and highest of these merely empirical elements of experience, certain concepts which render possible the formal unity of experience, and therewith all objective validity (truth) of empirical knowledge. These grounds of recognition of the manifold, so far as they concern solely the form of experience in general, are the categories (CPR, A125).

*Exegesis of Kant's Conception of Experience:*

Before proceeding with a detailed study of the relationship between the possibilities for meaningful experience and the self, it is important to distinguish what Kant means by experience. Early in the A deduction Kant gives a rather direct statement of what constitutes experience in general: "Now all experience does indeed contain, in addition to the intuition of the senses through which something is given, a concept of an object as being thereby given, that is to say, as appearing" (CPR, A93/B126). Thus, the intuition of the senses does not, alone, count as experience for Kant; experience requires concepts. We can then exclude from the analysis any intuitionist account of experience whereby experience is considered wholly preformed through the work of intuition, prior to consciousness thereof, and is only consequently recognised as such by a reflective self-consciousness. The motto of the introduction is reasserted: experience, which is not known as such, cannot count as experience. With this understanding of experience it follows that "The objective validity of the categories as a priori concepts rests, therefore, on the fact that, so far as the form of thought is concerned, through them alone does experience become possible" (CPR, A93/B126). If experience requires concepts, then the a priori demonstration of concepts will show them to be indispensable for experience, or,
that experience is impossible without them. In other words, if experience requires concepts then this also means that experience requires consciousness, or, that an experience of which we are not consciously aware does not count as experience: "Save through its relation to a consciousness that is at least possible, appearance could never be for us an object of knowledge, and so would be nothing to us; and since it has in itself no objective reality, but exists only in being known, it would be nothing at all" (CPR, A120).

Recognising this two part constitution of experience, though it may seem obvious, is essential to an understanding of Kant's deduction, and it will be shown that this commitment requires a particular temporality for a knowing/experiencing subject. Kant, despite his transcendental method, is not averse to taking cues from experience in an investigation. For as he writes: “We can, however, with regard to these concepts, as with regard to all knowledge, seek to discover in experience, if not the principle of their possibility, at least the occasioning causes of their production” (CPR, B118/A86. emphasis mine). Experience occurs, not only in time, but through time, and it is thus that it is known by an experiencing subject; not as a singular instant in time but as the contraction of multiple relevant aspects of perception characterised by duration. It is in the possibility for the constitution of this duration of experience within Kant’s account of the transcendental subject that this paper is interested.

The Structure of Apperception and the Analogous Structure of Intuition:

Throughout the transcendental deduction of the categories Kant explains the functioning of apperception and the understanding by reference to the forms of intuition,
particularly to the form of time. I maintain that this constant cross-referencing is not only an explanatory device, but that it can serve as such only because there is a common temporal structure which makes both accounts possible. That is, there is a structure of temporality at work in both, time as the form of intuition, and apperception, and this makes the functioning of the latter understandable in terms of the former. It may be objected that too much is being made of this similarity, and that the point of coincidence is merely their common transcendental nature, but a deeper analysis reveals that this common model of functioning shows apperception to rely on the essentially temporal functioning of productive imagination for the possibility of experience.

In the Transcendental Aesthetic Kant shows the necessity of time as a form of intuition. All cognitive activity, as regards both internal and external objects, occurs within time. As Kant writes: "since all representations, whether they have for their objects outer things or not, belong, in themselves, as determinations of the mind, to our inner state; and since this inner state stands under the formal condition of inner intuition, and so belongs to time, time is an a priori condition of all appearance whatsoever" (CPR, B50/A34). Space and time are the forms of intuition and the possibility of intuiting the manifold of appearances in determinate relations. Time however, is also the condition of all appearances as determinations of the mind. Now, an investigation into the connection between the structure of time (as the form of intuition), and apperception must begin with Kant's conception of, not only the components of experience, but his general outline of its structure.

At the very beginning of the A deduction, Kant again divides experience into two components with a different focus than the division given earlier. In addition to being divisible in terms of intuitions and concepts, we can also think of experience as being
constituted by content (that which the experience is of) and its form (the structure of the experience itself).

...experience contains two very dissimilar elements, namely, the *matter* of knowledge [obtained] from the senses, and a certain *form* for the ordering of this matter, [obtained] from the inner source of the pure intuition and thought which, on occasion of the sense-impressions, are first brought into action and yield concepts. (CPR, B118/A86)

So, with the first division of experience we have a distinction between the constitutive elements of intuition and concepts as those things which constitute the possibility of any actual experience. What the second differentiation shows is not so much the structures for actual components of experience as the necessary elements for any possible experience. In other words, an experience can be known as such only through the application of a concept through which the intuition is determinately known as appearance. The second distinction within experience is to show the distinction between what can appear and *how* it is possible that *anything* can appear. While these two approaches are not unrelated, they serve to identity significantly different means of analysing experience. One could think of these two approaches as corresponding to a metaphysical exposition (*that* experience consists of intuitions and concepts) and a transcendental exposition (*how* a certain ordering makes objects comprehensible in experience). It is in this latter sense that I am interested in the constitution of experience, and it is in this sense that an analysis of the analogy drawn between the form of time and the unity of apperception is fruitful.

We must bear in mind that time, as the form of intuition, orders the manifold of sensation into an intuition, while the unity of apperception allows for the intuited, reproduced manifold to be synthesised into a concept. One must not conflate the work
done by the form of time and apperception, but it is important to show how their functioning is analogous and draw out the implications of this. "In other words, appearances in experience must stand under the conditions of the necessary unity of apperception, just as in mere intuition they must be subject to the formal conditions of space and time" (CPR, A110, emphasis mine). This 'just as' is used repeatedly by Kant to draw the reader's attention to the similarity of functioning between apperception and the forms of intuition\textsuperscript{1}. The deeper implications of this are not, however, made explicit by Kant. These implications involve an understanding of apperception as requiring a temporal ordering at the level of intuitions. That is, apperception cannot only be an ordering function of intuitions whose temporality is preconstituted by the form of those intuitions, but apperception must be related to appearances in virtue of the synthesised temporality of experience.

An analogy is being drawn between the forms of intuition, as making possible the intuition of appearances in experience, and apperception as making possible conscious experience. We know that while there are two forms of intuition, it is time which is the form which conditions all cognitive activity, as regards both internal and external objects. Thus, strictly speaking, "time is an a priori condition of all appearance whatsoever" (CPR, B50/A34). It is this recognition, taken in conjunction with Kant's persistent analogies, that led me to consider the temporal character of apperception.

Further in A110 we find, "There is one single experience in which all perceptions are represented as in thoroughgoing and orderly connection, just as there is only one space and one time in which all modes of appearance and all relation of being or not

\textsuperscript{1} cf: A107, A110-twice, A111,A118, A124, A127-twice,A128; these are only the explicit instances.
being occur" (CPR, A110 emphasis mine). Here the commonality of the analogy is the singularity of experience and the singularity of the forms of intuition. Keeping in mind that what is being discussed here is the form of experience (rather than its content, as per the above distinction) we can see the strengthening of the assertion that the structure of apperception is relevantly similar to the structure of time. ²

Let us take one further example: "Now I maintain that the categories, above cited, are nothing but the conditions of thought in a possible experience, just as space and time are the conditions of intuitions for that same experience" (CPR, A111 - emphasis mine). Here the categories, as pure a priori modes of understanding for apperception, render possible the thought of an experience, just as, or in the same manner, that time (if we wish to include inner experiences) makes possible intuition in the constitution of an experience.

The purpose of all this is primarily to open the possibility for the idea of apperception as being constituted, in its functioning, by time or temporality. These analogies show that this is not unreasonable in terms of its structure, and we may now proceed to an analysis of temporality as it develops through the syntheses leading toward a fuller account of apperception as depending upon the transcendental synthesis of imagination.

² I recognise that the quotations used include the forms of both time and space in the analogy, however, in so far as apperception, as consciousness, involves consciousness of both inner and outer objects, I do not think it unfair to emphasize the form of intuition which also concerns both inner and outer objects of intuition, in other words, time.
Miller and the Temporality of Experience:

In his article "Making Sense of Kant", Larry W. Miller focuses on the issue of temporality in the Critique of Pure Reason in order to clarify certain points of confusion in Kant's argument. Miller's purpose is to establish that "a quantitative synthesis in time precedes or is presupposed by any empirical intuition" (Miller, 95). While my purposes do not perfectly overlap Miller's, there are relevant points of convergence. The most pertinent points for consideration in this paper are Miller's account of the role of a synthesis of time, and his emphasis on the significance of the two part constitution of experience (intuition, consciousness).

As I mentioned in the introduction, Kant could proceed with his account in the transcendental aesthetic without needing to give an account of the subject only in so far as he is not discussing experience but merely a constitutive element thereof.

Miller also picks up on this point:

The mysterious givenness of time as pure intuition is due to the provisional isolation in the Transcendental Aesthetic of sensibility from understanding, so synthesis is not used to explain time as pure intuition. Also, time as pure intuition is prior to time as form of sensibility, since a synthesis in time is prior to empirical intuition. Pure intuitions are empirically empty concepts, but provide content for pure concepts, (Miller, 100).

Kant elaborates time in the transcendental aesthetic in its necessity as a form for any possible intuition, but this givenness of time is not further elaborated in terms of experience with the introduction of apperception. Time as the form of intuition is necessary for any possible empirical intuition. However, even though the manifold of
intuition can be represented only in so far as the mind discerns time in the sequence of impressions, the first synthesis, that of apprehension, is directed immediately upon intuition and unifies intuition in this very representation. The synthesis of apprehension unifies the manifold in a single representation, functions a priori, and applies to non-empirical representations; this yields the representations of space and time, “They can be produced only through the synthesis of the manifold which sensibility presents in its original receptivity. We have thus a pure synthesis of apprehension” (CPR, A99-100). This application of a pure intuition to the form of intuition opens considerations of a synthesis of time which is prior to, and makes possible, time as the form of intuition. In order to give a more complete account of the functioning of time and apperception we must follow the indications of our investigation and inquire into the role of time in the application of concepts.

Miller maintains that the role of the deduction of the categories is to provide an answer to the question: “since a synthesis in time precedes empirical intuitions, how can we justify the applicability of apriori [sic] concepts to experience?” (Miller, 101). The answer is, of course, that the a priori concepts make experience possible. While I agree that this is the answer, I maintain that Kant’s question is rather ‘how are a priori judgements possible given that they are actual?’ Miller’s emphasis on time relations, though I too find them to be of the utmost significance, remains Miller’s emphasis (and mine) and not Kant’s own.

In any event, it is in the third synthesis, recognition in a concept, that we find an explication of the object, which Miller cites in explaining the intimate relation of time and apperception. Citing Miller citing Kant:
An object is a necessary unity which 'can be nothing else than the formal unity of consciousness in the synthesis of the manifold of representations' (A105), but this can only be time. The conditions of the possibility of objects of experience are the conditions of the possibility of experience (A111). (Miller, 101)

Here Miller makes two important points; first, that it is time which serves as this formal unity of the object for consciousness, and second, that time, as the possibility for objects of consciousness, is simultaneously the possibility for experience. Following from these two points we can see that time is not only a form of intuition rendering any intuition possible, but is also the possibility for experience as conscious experience. Time as the form of intuition is not identical to the synthesised time of experiential objects; they share a structure of functioning (as pointed to in the above discussion of Kant's analogies) but are of a different order. Time as the 'formal unity of consciousness in the synthesis of the manifold of representations' must already be in place for it to be possible to apply concepts to the intuitions synthesised by apprehension, which employs the form of time.

Guver and the Priority of a Pure Synthesis:

In his article "Kant on Apperception and A Priori Synthesis", Paul Guyer attempts to explain that Kant's theory of a priori synthesis is the result of a mistaken assumption that there is "a thoroughly synthetic connection between consciousness and the self-ascription of experience, or self-consciousness" (Guyer, 205). His conclusions in this article do not directly concern our purposes here; however, some points of his argument have significant bearing and serve to shed light upon some salient points of our discussion. To begin with, Guyer points out that, contrary to the assertions of some (cf.
Strawson: *The Bounds of Sense*) it is undeniable that Kant "...is clearly committed to the existence of a creative synthesis imposing order on the manifold of empirical intuition" (Guyer, 206), and that this point cannot be relegated to an imaginary transcendental psychology which has no bearing on the main argument of the Critique. The initial explication of this point of Guyer's is all that shall be dealt with here, as it serves to establish the recognition that there is a synthesis at work in the A deduction which is prior to, and makes possible, experience. It will be maintained that this prior synthesis is the temporality of consciousness which is made possible by the transcendental imagination.

Guyer, in giving his exposition of a transcendental synthesis prior to any empirical intuition, also selects the A deduction as that site which is most rich in the analysis of syntheses. Guyer is arguing for the acknowledgment of an active pure synthesis which occurs prior to any empirical synthesis (Guyer, 206). For an explication of this, he points us to the synthesis of reproduction in imagination in the A deduction:

"Evidence for this claim is not hard to find. It may be found in Kant's assertion that there is a 'synthesis of reproduction in imagination' which must be counted among the 'transcendental actions of the mind'...for 'this synthesis of imagination' he holds, 'is grounded prior to all experience on an a priori principle, and one must assume a pure transcendental synthesis of imagination which grounds even the possibility of experience' (A 101-102)" (Guyer, 206).

Indeed, it is in the synthesis of reproductive imagination that a crucial turn occurs in Kant's deduction. Here we find a move from the synthesis of apprehension, which is directed immediately upon intuition, to a synthesis which involves creative action. Guyer is interested in this synthesis for precisely this reason; in attempting to establish an active synthesis prior to any empirical synthesis, it is the imagination which first introduces a productive force within the syntheses of consciousness. It is not however, as he supposes,
the best instance of a synthesis which is necessarily prior to any empirical synthesis (but more on this below). This synthesis of reproductive imagination is prior to experience because "...experience as such necessarily presupposes the reproducibility of appearances" (CPR, A101-102), and this is the work of imagination. Kant further explicates the importance of this:

But if I were always to drop out of thought the preceding representations (the first part of the line, the antecedent parts of the time period, or the units in the order represented), and did not reproduce them while advancing to those that follow, a complete representation would never be obtained: none of the above mentioned thoughts, not even the purest and most elementary representations of space and time, could arise (CPR, A102, emphasis mine).

The synthesis of reproduction in imagination is the possibility for the basic representation of time, that is, any knowable experience of time, but not of time as a structure of experience in the form of intuition. The syntheses of apprehension and reproduction are intimately linked because this possibility of representing time is also necessary for the possibility of apprehension of the manifold, in time and through time. Since we do experience representations in time and have an experience of time, that which is necessary to make this possible must be the case. So, the form of time in intuition is the a priori condition of all appearances (inner and outer) as the form of inner sense, and the synthesis of reproduction is the condition for the representation of time. The form of time is deduced by the assertion that experiences of succession and simultaneity cannot be the source of a derived notion of time since these experiences presuppose a perception that is already, fundamentally, temporal. Time needs to be a pre-existing form of intuition for simultaneity and succession to be comprehensible to us. However, the representation of time, as depending upon the reproductive imagination, is what necessitates its being prior.
to any empirical synthesis. Succession and simultaneity are necessary for coherent experience and thus the synthesis which renders their representation possible must precede the actual experience of them. I presume that this is Guyer's point in asserting that the synthesis of reproductive imagination must be prior to empirical syntheses. However, if we follow the development of this synthesis through the establishment of transcendental apperception, we find a significant addition to Kant's explication of imagination: "only the productive synthesis of the imagination can take place a priori; the reproductive rests upon empirical grounds" (CPR, A118). While it is the case that the reproductive imagination make possible our representation of simultaneity and succession, and hence gives the impression that it precedes any empirical synthesis, Kant is making the point that there must be empirically intuited objects in order for them to occur simultaneously or in succession. Since the reproductive imagination reproduces the representations apprehended in the manifold of intuition, it cannot, by itself, provide the connection of impressions which could reinstate the previous impression concurrently with the next impression. This reproduction must function according to a rule so that one representation is connected, rather than another, in a coherent fashion. "This subjective and empirical ground of reproduction according to rules is what is called the association of representations" (CPR, A121). Just as Kant could refer to a merely abstract subject in his discussion of the forms of intuition, so too he could defer the discussion of the productive imagination only until it comes 'time' to explicate the functioning of apperception in detail. And this because "the principle of the necessary unity of pure (productive) synthesis of imagination, prior to apperception, is the ground of the possibility of all knowledge, especially of experience" (CPR, A118).
Productive Imagination:

We are now in a position to turn to the discussion of the productive imagination (as distinguished from the reproductive) where we shall find the basis for the temporal synthesis which is prior to any experience and renders experience possible. This is accomplished, not through time as a form of intuition, but with temporality as the ground for the consciousness of experience as such.

The reproductive imagination is seen to depend upon empirical syntheses since it is the synthesis of representations apprehended in intuition, but the rules according to which this reproduction occurs require grounding in a, yet prior, synthesis and this is the productive imagination. The association of representations which the reproductive imagination makes possible requires an objective ground for appearances to fit into the whole of human knowledge. In order to belong to a consciousness of myself, not only must I be able to associate perceptions, but these must themselves be associable, "For it is only because I ascribe all perceptions to one consciousness (original apperception) that I can say of all perceptions that I am conscious of them. . . This objective ground of all association of appearances I entitle their affinity" (CPR, A122). The objectively grounded unity of all possible empirical consciousness in original apperception is the necessary condition of knowledge, and the affinity of appearances necessarily follows from the faculty of a priori, rule grounded, synthesis of imagination: productive imagination.

The productive imagination is a transcendental function of imagination as necessitating the unity (synthesis) of the manifold in appearance, without this no concepts
could combine to form a unified experience. "That the affinity of appearances, and with it their association, and through this, in turn, their reproduction according to laws, and so [as involving these various factors] experience itself, should only be possible by, means of this transcendental function of imagination, is indeed strange, but is none the less an obvious consequence of the preceding argument" (CPR, A123). In Kant's own words then, we have the admission that experience itself is only possible by means of the productive imagination, for "By its means we bring the manifold of intuition on the one side, into connection with the condition of the necessary unity of apperception on the other. The two extremes, namely sensibility and understanding, must stand in necessary connection with each other through the mediation of this transcendental function of imagination" (CPR, A124). Allison too, though working with the B deduction, draws the same conclusion from Kant: "he argues that the representations of space and time as unities require a transcendental synthesis of imagination...then, in §26, he argues that the empirical synthesis of apprehension, which is constitutive of perception, is itself subject to the conditions of the transcendental synthesis" (Allison96, 52).

The productive imagination, as this mediating synthesis, must have a structure which is conducive to the mediating work which it does; there must be an element of commonality between sensibility and understanding which could provide the space within which the productive imagination can do its work. This commonality is pointed to when Kant, once again, reasserts his analogy in concluding his discussion of the role of the productive imagination: "All consciousness as truly belongs to an all-comprehensive pure apperception, as all sensible intuition, as representation, does to a pure inner intuition, namely to time" (CPR, A123-124). In this instance of the analogy the form of space has been dropped in order to emphasize time as the form of inner intuition, and hence, all
sensible intuition as representation (for representations, in so far as they are known, are inner).

The Temporality of the Productive Imagination: Transcendental Memory:

Now, all consciousness is temporal, we experience our lives in terms of events and the unity of apperception is fundamental to the possibility for human knowledge because we need to be able to self-identify across time. The reproductive imagination cannot serve as the ground for the necessary association of images because it presupposes other empirical syntheses, namely apprehension in intuition. What is needed is a synthesis which does not depend upon other empirical syntheses, but rather makes the application of consciousness to the unified representations of these syntheses possible. The pure synthesis of productive imagination is the a priori ground which provides the rules according to which empirical imagination can function. But, more than this, according to Kant, the productive imagination is also the mediating factor between these empirical representations and the unchanging structure of consciousness, transcendental apperception.

If we combine Kant's assertions that all sensible intuition as representation belongs to the form of time, and that transcendental apperception is the requisite structure of an unchanging self to which representations can be attributed consistently across time, we find that the mediating work of the productive imagination must be temporal in its functioning. Its mediating work makes possible the coherent association of representations and their attribution to a consciousness which is known to be the same.
through the duration of time. In other words, the productive imagination is an a priori structure which provides rules for the attribution of different experiential objects to the same consciousness and allows them to be known as such. When Kant asserts that pure imagination is the ground of possibility for experience, this is because it facilitates the relation of both sides of the equation: the comprehensible ordering of objects of experience, and the consciousness for whom experience is possible. Representations are possible only in so far as they occur within a consciousness unified in time; this principle is true a priori and is what makes possible the synthesis of apprehension in intuition. Only in so far as the structure of a unified consciousness does not alter across time can apprehension provide unified objects of intuition for it.

By unifying the representations of experiential objects which occur in time, pure imagination makes possible their attribution to a self which is unchanging through time. This is the description of a transcendental structure of memory. The reproductive imagination allows for the association of different representations or images within an empirical consciousness but cannot itself ground the rule for these associations within consciousness. This can be thought of as the way we associate particular scents with particular events, or people.

What the productive imagination provides are the laws of affinity according to which it is structurally possible to order representations or images which are subject to the form of time (even a past time) in intuition, such that they can be known by the same consciousness as belonging to it, even as that empirical consciousness changes across time. The retention of representations across time must first be possible for the representations then to be attributed to the same consciousness in the future; this is the work of memory. Kant writes that it must be possible to attribute objects to
consciousness as the same consciousness across time; nowhere is this required more than in the functioning of memory. Memory is only possible in so far as past experiential objects are not only recalled to consciousness, but recalled as distinctively mine. The productive imagination is precisely that which renders possible such an attribution of objects of consciousness to the same consciousness across different times, prior to any actual, or empirical, instantiation of this faculty. This is the transcendental structure of the possibility for the association of memories and their attribution to a structurally identical consciousness. In so far as memory is the application of past representations to a self which is conscious of the self-identity which this attribution of memories implies, it requires a grounding synthesis which performs the temporal unification of the productive imagination. A temporal synthesis which mediates between past images, known as such, and a self-identical consciousness must precede any empirical possibility for the association of memories as mine, just as "The synthesis of the manifold through pure imagination, the unity of all representations in relation to original apperception, precede all empirical knowledge" (CPR, A130).

The reproductive imagination synthesises representations such that one thing follows another; Kant shows that, for this to be possible, there must be a grounding synthesis which provides the rules according to which this ordering functions. We can easily see how this is also the possibility for memory; we recall (bring to consciousness) past events that involve a temporal ordering which is internal to the representation itself. That is, we can bring to consciousness objects in an order in which we did not actually encounter them (I can think of yesterday before I think of my last birthday), but the representations contain within themselves, as part of their very constitution, a temporal ordering (I know that my birthday actually preceded yesterday in terms of the order in
which I experienced them). This is evidence of a temporal synthesis at work within our representations which allows for the attribution of representations to the same consciousness across time, but also, as being internally structured by a temporality of experience which is coherent for that consciousness, as of its own experiential constitution. Such a synthesis cannot be known only in a derivative way from our experience of memories, for, it is presupposed by memories. The pure synthesis of productive imagination is thus, also the transcendental structure of memory. It cannot be derived from empirical consciousness of memories for it is necessary for their possibility, and hence is transcendental. It is the temporal synthesis through which it becomes possible to attribute objects of consciousness to the same consciousness across time, and hence is transcendental memory.
Bibliography, Chapter One


Chapter Two

Schematism: Time Determination and Memory.

Introduction: transition to schematism, and principles, of understanding:

Kant's schematism of the understanding is of pivotal importance for this investigation into imagination, temporality, and memory since it is here that we find an elaboration of the implications of the productive imagination as a fundamental power of human knowledge and experience. The transcendental schematism is a product of imagination and its functioning is exclusively temporal in character. It shall be shown that this elaboration of imagination's influence is completely co-extensive with and complementary to the description of a transcendental structure of memory being developed in this paper. In the previous chapter it was established that the transcendental synthesis of productive imagination is indispensable to the possibility for the combination of concepts to form a unified experience. Further, productive imagination is the mediating factor between empirical representations and the unchanging and abiding I: transcendental apperception. In this capacity, I argued, the productive imagination can be read as a description of a transcendental structure of memory in so far as this synthesis performs the temporal grounding required for the attribution of objects to consciousness as the same consciousness across different times. This transcendental and temporal grounding is necessarily prior to any actual instantiation of empirical memory as the possibility of the empirical. In the present chapter, the schematism shall be shown to be
the consistent elaboration of the powers of the productive imagination, as a transcendental
structure of memory, as Kant explains the possibility for the application of pure concept
of understanding to appearances. The explication of the schematism hinges upon the
importance of time as the ground of possibility for the application of concepts to
appearances. The schemata, as fundamentally temporal, are the expression of the
transcendental synthesis of productive imagination and an analysis thereof strengthens the
position that the productive imagination is identical with a transcendental structure of
memory, and further, provides the site at which it can be seen how transcendental
memory makes experiential objects possible.

Kant is not primarily concerned with every particular empirical determination of
judgment, but rather the structure of transcendental judgment that renders possible
judgment as such. His elaboration of the transcendental doctrine of judgment is broken
down into two primary divisions; first, the schematism of the understanding, which gives
the sensible conditions under which the pure concepts of understanding are applicable to
appearances, and second, the principles of pure understanding: synthetic judgments which
follow a priori from the pure concepts of understanding and which are the foundation of
all other modes of knowledge.

_Schematism: Summary and Explication:

Kant's exclusive concern in the schematism is the possible relation of pure
concepts of understanding, on the one hand, with appearances on the other. Kant defines
this relation as one of subsumption; however, this relation of subsuming an appearance
under a concept is not a straightforward one, for: "In all subsumption of an object under a concept the representation of the object must be homogenous with the concept; in other words, the concept must contain something which is represented in the object that is to be subsumed under it" (CPR, A137/B176). This presents a problem for Kant because there can be no greater heterogeneity than that between a pure, that is, devoid of empirical content, concept of understanding, and sensible, or empirical, intuitions. Kant gives, as an example of an object being contained under a concept, the empirical concept of a plate being homogenous with the pure geometrical concept of circle; “the roundness which is thought in the latter can be intuited in the former” (CPR, A137/B176). This is not straightforwardly possible for pure concepts and intuitions. For example, the concept ‘of causality and dependence’ cannot be intuited in appearance (as was stressed by Hume, and as was demonstrated in the Transcendental Aesthetic). To solve this problem of subsuming intuitions under pure concepts, which is synonymous with the application of the categories, a third, mediating, element is required. This third ‘thing’ (mediating representation), in order to play the mediating role, must be homogenous with the category (pure from empirical content) on the one hand, and also be homogeneous with appearance (both intellectual and sensible) on the other. This mediating representation is what Kant terms the transcendental schema.

Regarding the description of the schema as a third ‘thing’, which Kant gives at B177/A138, we must guard against thinking the schema as a definite thing in the sense of objectivity, or worse, physicality. Shortly after the characterisation of the schema as the necessitated third thing (which occurs only once) Kant specifies that the schema is a mediating representation. This caveat is here given in preparation for the discussion of Norman Kemp Smith’s analysis of the schematism, in which much is made of this one
time, though admittedly ill-phrased, description of a schema. But we shall come to this later.

The key element in the elaboration of the schematism is time; it is time which can serve as the ground for the mediation necessary for the subsumption of intuitions under concepts. As discussed earlier, it is time which, as the form of inner sense and hence any possible representation whatsoever, contains an a priori manifold in pure intuition. In Kant’s words: “a transcendental determination of time is so far homogenous with the category, which constitutes its unity, in that it is universal and rests upon an a priori rule” (CPR, B177/A138 - B178/A139). However, time, as the form of both outer and inner intuition must apply to every actual representation of the manifold and hence is seen to be homogeneous with appearance. Time, considered as the formal condition of the possibility for the connection of all representations, is understood as being universal. Hence, time is understood as necessarily applying, a priori, to any representation. It is also the case, when considering that every representation must occur in time, that time applies to every actual representation of the manifold. Time is homogeneous with, both, the category as a priori (the condition of experience), and appearance as representation (the content of experience). “Thus an application of the categories to appearances becomes possible by means of the transcendental determination of time, which, as the schema of the concepts of understanding, mediates the subsumption of the appearance under the category” (CPR, B178/A139).

Now, with the deduction of the categories, Kant established the necessity of certain structures of understanding. This is often described by commentators as the top-down approach since it can be viewed as an attempt to establish that the categories are necessary for any knowledge of objects, while the schematism is viewed as serving as the
converse explication; or the bottom-up approach, in which the application of concepts to objects is shown to be possible. The debate surrounding this characterisation of Kant's project need not waylay us here. What is important to notice is that, in the schematism, Kant stresses the limitations which sensibility places upon the application of the categories. Kant points out that since objects can only be given to us through a modification of our sensibility, pure concepts must contain, a priori, certain formal conditions of inner sense (CPR. B178/A139). This stipulation serves a twofold purpose; it warns against falling into the misapprehension of thinking that categories apply to things in themselves, and it opens our thinking to the description of an inter-relation between sensibility and understanding (which is forthcoming): "These conditions of sensibility constitute the universal condition under which alone the category can be applied to any object. This formal and pure condition of sensibility to which the employment of the concept of understanding is restricted, we shall entitle the schema of the concept" (CPR, A140/B179).

Kant opens his detailed account of the schematism with a blunt, and for our purposes, essential, description of a schema: "The schema is in itself always a product of imagination" (CPR, B179/A140). In the analysis to follow this summary I shall give a complete explication of the necessity and implications of this characterisation, but for now I shall continue with the exegesis. Kant stipulates that the synthesis of imagination achieves the unity of a determination of sensibility, not the synthesis of a particular intuition (since it does not concern the synthesis of a particular intuition, the imagination referred to here must be the productive, rather than reproductive). There is required then, a distinction between the schema, which is the mediating element between concept and intuition, and the image, as it relates only to particular sensations.
In order to elaborate this distinction Kant gives the example of five dots [. . .]. From the appearance of the dots we have an image of the number five, but this becomes more difficult when we increase the number, for example, in thinking about one thousand. When we think about a number in general (as we must do with one thousand), we then have the representation of a *method* for representing a multiplicity in an image, in conformity with a concept, rather than just an image itself. "This representation of a universal procedure of imagination in providing an image for a concept, I entitle the schema of this concept" (CPR, A140/B180). It is not images, but schemata which underlie pure sensible concepts; concepts are universal, images are particular. An image can never be adequate to a concept since it is only in virtue of the application of the concept that the image is then *derived* from appearances. "The *image* is the product of the empirical faculty of reproductive imagination; the *schema* of sensible concepts, such as figures in space, is a product and, as it were, a monogram, of pure *a priori* imagination, through which, and in accordance with which, images themselves first become possible" (CPR, B181/A142). The productive imagination yields the schemata which shall be seen to make empirical memory possible, while images are akin to actual memories themselves. As explained in the previous chapter, the productive imagination is a temporal synthesis which makes it possible to attribute objects of consciousness to the same consciousness across time. This is why it is equivalent to a transcendental memory. The schemata, as the products of this synthesis, determine appearances in their specific temporal character which makes them possible objects of experience. Images, on the other hand, as the products of empirical, reproductive imagination, presuppose the work of the schemata in order to have knowable appearances of which to form an image. It is thus easy to understand why a pure concept of understanding can never be brought into an
image. If we take as an example the concept of causality, we see that we can form no image thereof, the way that we could form an image of 'five' from then series of dots. And this, for the same reasons which Kant gives, along with Hume, against the possibility for deducing causation from appearances. We can see here an elaboration of the powers of the distinct imaginations discussed in the previous chapter: the image, as product of the reproductive imagination, is always empirically grounded and presupposes, as its possibility, the schema, as product of the productive imagination. The schema "is a transcendental product of imagination, a product which concerns the determination of inner sense in general according to conditions of its form (time), in respect of all representations, in so far as these representations are to be connected a priori in one concept in conformity with the unity of apperception" (CPR, B181/A142).

As mentioned in the previous chapter, this work is not so much concerned with the particular content of the concepts of the understanding which Kant has deduced, as it is focused on the necessity of the structures which underlie the possible functioning of any pure concepts of the understanding. In other words, while I do not raise any objections to the particular categories or concepts deduced by Kant, neither need I fully endorse them as either accurate or exhaustive. What is important is that the productive imagination and time are seen to play essential roles in the functioning of any such transcendental structures of human knowledge, and experience, described in Kant's system. So it is that, in coming to Kant's descriptions of the particular schema for each of the categories and concepts thereof, I shall not involve myself in the speculative project of reading Kant's limited treatment of a category (namely quantity), as potential evidence
that Kant himself did not believe his deduction to be exhaustive etc.\textsuperscript{3} The remainder of
my summation of the schematism then, shall have as its focus the fundamental
importance of time in making any mediating representation (schema) possible for each of
the categories, rather than the potential weaknesses, if there be any, in particular
categories given.

The first of the categories is that of quantity, which Kant discusses in the
schematism as magnitude. The pure schema of any concept of the understanding under
the category of magnitude is number. This is because the schema of magnitude is a
representation which, through its synthesis, results in the successive addition of
homogenous units. Successive addition is what makes possible the image of the number
‘five’ in the above example of the successive dots. As a synthesis which comprises
succession, it must necessary be temporal; if it were not, we could not contract the five
otherwise temporally separate dots into a single image. Rather than an image of the
number ‘five’, the dots could only be thought, in turn, as: ‘one, one, one, one, one’.

“Number is therefore simply the unity of the synthesis of the manifold of a homogenous
intuition in general, \textit{a unity due to my generating time itself} in the apprehension of the
intuition” (CPR, B182/A143. \textit{emphasis mine}). The schema of magnitude is what makes a
knowable past possible for us. The generation of time itself, characterised as succession,
gives us the notion of time as linear and allows us to distinguish the present (as that which
has succeeded the past) from the past. By establishing this fundamental time
determination, the schema of magnitude opens the possibility for us to continue to know
ourselves, and the world, even after the present has become the past. This is a necessary

\textsuperscript{3} For a persuasive defence of this apparent omission on Kant’s part, see Paton’s \textit{Kant’s Metaphysics of
ground for any possibility for memory, without which our knowledge would be
condemned to the apprehension of successive presents which, as in the example of the
five dots, could not even be known as successive.4 Productive imagination is a temporal
synthesis by which it is possible to attribute objects of consciousness to the same
consciousness across time; however, it is in virtue of the schema of magnitude that
appearances are temporally determined, such that my past is, not only, known as mine,
but known as past in a temporal succession. A past that is knowable as such is the sine
qua non for any account of memory.

Next we come to the category of quality, with its three concepts: reality, negation,
and limitation. The schema of reality is that which determines being in time, and,
conversely, negation is that determination of not-being in time. “The opposition of these
two thus rests upon the distinction of one and the same time as filled and as empty” (CPR,
B182/A143). Finally, the concept of limitation is not explicitly named, however, a
charitable reading will find that what Kant is describing in the remainder of his account of
the category of quality is the sensible application of a concept of limitation. Kant
describes the relation between reality and negation as one of transition, or degree. Every
sensation has a degree such that “it can fill out one and the same time, that is, occupy
inner sense more or less completely, down to its cessation in nothingness (=0= negatio)”
(CPR, B182/A143). The schema of the category of quality then, is the determination of
time, as inner sense, as it is filled to a greater or lesser degree by sensation or reality.
These two (sensation and reality) are the same as far as we are concerned since we have
not to do with things in themselves, but objects as appearances subject to the conditions

4 This of course is impossible since every instant, or present, is necessarily characterised by duration (as
will be shown) and hence presupposes the time generation of the schema of magnitude. This is simply
intended to demonstrate the necessity of temporal succession for human knowledge, and memory.
of sensibility. "The schema of a reality, as the quantity of something in so far as it fills time, is just this continuous and uniform production of that reality in time as we successively descend from a sensation which has a certain degree to its vanishing point, or progressively ascend from its negation to some magnitude of it" (CPR, A143/B183. emphasis mine). In other words, the work which the schemata of quality accomplish is the filling of time with appearances in temporally determinate ways. These schemata, quite simply, determine that appearances necessarily occur in time. The schema of magnitude generates time itself as successive and the schemata of quality give this successive temporality its content. The former is the possibility of a past and the latter determines that which has passed. The syntheses of the schemata of quality allow for the content of memory, the determination of appearances as, not only necessarily belonging to time (for this is accomplished by the form of intuition), but as belonging to a temporality which can be known, and which can be known to pass. These schemata then, presuppose and build upon the schema of succession: upon a successive temporality, as the possibility for memory, is founded the content of memory.

Third in the series comes the category of relation, with its concepts: i) of inherence and subsistence (substantia et accidens), ii) of causality and dependence (cause and effect), iii) of community (reciprocity between agent and patient). "The schema of substance is the permanence of the real in time, that is, the representation of the real as a substrate of empirical determinations of time in general, and so abiding while all else changes" (CPR, A143/B183). In other words, certain appearances are not permanent; they appear and pass away, and this occurs in time. However, time itself, the ground in and through which what passes, passes is not itself transitory; time itself abides. What corresponds to this temporal abiding in appearance is substance. It is in relation to
substance that, both, succession (causality) and coexistence (reciprocity) regarding appearances can be determined in time. The schema as it relates to causality then, is the succession of the manifold according to a rule. As it relates to community; the schema determines coexistence, according to a universal rule of determinations in time, of one substance simultaneously with another (CPR, A144/B184). The schema, as it relates the category of relation then, can be thought as determining the ordering in time of appearances; substance: permanence in time, causality: before and after, and community: simultaneity in time. Time ordering has obvious connections with the structure of memory: past, past remembered in the present but as past, contracting of past in the present toward the future in anticipation: anticipating the effect to follow the cause. The schemata of relation establish the time-order of appearances; the relation of appearances to each other (and themselves) within and through time. In virtue of these schemata, I can know that the car I left in the parking lot three hours ago stands in a distant successive relation to that same car when I bought it two years ago (it is much worse for wear). Also, when I get into the car again and turn the ignition I anticipate that, once the turning of the ignition has become past (cause), the engine will start (effect). The schemata of relation rely upon both the schema of magnitude for the generation of time, and the past, itself, and the schemata of quality for determining appearances within time. What relation’s schemata accomplish is the temporal determination of appearances in relation to each other within time, and most notably, within the past. Further, these schemata make it possible for me to discern the order of different memories within time: I know that I broke my clavicle after my sixteenth birthday but before Christmas, and during the second period of a hockey game. It is thus that memories are not only possible as past
Finally comes the category of modality, with the concepts of possibility-impossibility, existence-non-existence, and necessity-contingency. “The schema of possibility is the agreement of the synthesis of different representations with the conditions of time in general” (CPR, A144/B184). For example, opposite attributes cannot coexist in the same appearance at the same determination of time, but only, if at all, successively. This schema then, is a time determination of a representation at some particular time, such that it restricts the simultaneous appearance of that which can only occur successively. This time determination is what prevents confusing the past with the present as we recollect the past in the present. Memories would be nonsensical if we were to remember events that have passed but believed them to be occurring before our eyes in the present. In other words, experience (past and present) to be possible we cannot know them as simultaneously past and present. Regarding existence and non-existence, the schema is simply existence at some determinate time. Similarly with necessity and contingency; the schema is the determination of an object at all times (necessity) or some delimited duration of time (contingency). We can see here the contraction of a memory into a delimited duration: the memory of my tenth birthday does not encompass the entire time from that day up to the present; it has a certain duration which renders it manageable and sensible to me as remembering it.

We are thus in a position to recognise that, as Kant writes: “the schema of each category contains and makes capable of representation only a determination of time” (CPR, B184/A145). The schema of magnitude is the generation of time itself; time as ground in which appearances can occur, be ordered, and have duration; it is the
generation of the ‘series of time’ and the possibility for a knowable past. The schema of quality is the filling of time with appearances, it is here that we find “the synthesis of sensation or perception with the representation of time” (B184/A145); it is the ‘content of time’ and hence the content of memory. The schema of relation establishes the connection of appearances according to a determinate ordering of time: abiding in time, occurring successively in time, and coexisting in time. It is the ‘order of time’ and the temporal ordering of memories. The schema of modality involves the determination of objects as occurring or not (in time), and for a certain duration; it is the ‘scope of time’ and the determining of duration for memories within time. The schemata of understanding express the significance of time, taken beyond mere form of intuition, through the power of productive imagination, as the fundamental condition for knowledge and experience of objects:

It is evident therefore, that what the schematism of understanding effects by means of the transcendental synthesis of imagination is simply the unity of all the manifold of intuition in inner sense, and so indirectly the unity of apperception which as a function corresponds to the receptivity of inner sense. The schemata of the pure concepts of understanding are thus the true and sole conditions under which these concepts obtain relation to objects and so possess significance (CPR, B185/A146)

The schemata both realise and restrict the categories; they realise their empirical employment by subordinating appearances to universal rules of synthesis, leading to connection in one experience. However, they limit the categories in their application to conditions which are sensible, and therefore beyond the prerogative of understanding alone. The schemata represent things only as they appear; pure concepts of understanding, since they are stripped of all sensible conditions, have only a logical
meaning, signifying only the unity of the representations, but cannot represent an object (CPR, B186/A147).

I shall defer the discussion of the principles of understanding, which follows the schematism in Kant’s Critique, to a later chapter since, neither is it necessary for our purposes here, nor is there adequate space in this chapter for discussion of the axioms, anticipations, and analogies. I shall now entertain some of the secondary literature on the subject of the schematism, and through a discussion thereof, further elaborate the ground for the position of this paper that there is a transcendental structure of memory at work in the Critique which is both necessary and productive for Kant’s account of the conditions of possibility for human knowledge and experience.

Norman Kemp Smith’s Critique of the Schematism: Making Space for Time:

In his A Commentary to Kant’s ‘Critique of Pure Reason’, Norman Kemp Smith begins his discussion of the schematism by defining the project as “preparatory in character; it draws attention to the importance of the temporal aspect of human experience, and defines the categories in the form in which they are present themselves in an experience thus conditioned by a priori intuition” (K.S. 333). This depiction of the schematism, along with much of Kemp Smith’s following commentary, I find partially accurate, and partially misled. It is no doubt true that the temporal aspect of human experience, in its constitution, is of the utmost import in the schematism. However, the question of whether the schematism is merely preparatory in nature, rather than the very
core of Kant’s account of human experience as temporal\(^5\), we shall defer answering until we have also examined the principles of understanding.

Kemp Smith’s primary objection to the schematism is that it is altogether unnecessary, and he speculates that Kant inserted the section only as a result of his being beholden to the architectonic structure of the Critique as a whole (K.S. 332). I am in no position to analyze, nor am I interested in, analyzing Kant’s work in terms of the symmetrical structure thereof. Let us proceed then to the content of Kemp Smith’s objection; in brief, it runs as follows: Kant stipulates that pure concepts and intuitions are heterogeneous; however, if this is the case then no subsumption is possible, and if this is not the case then the schematism is not needed (K.S. 334). I do not think that Kant would disagree with this description; it seems to be simply another phrasing of Kant’s problem. What Kemp Smith seems to miss, is Kant’s solution as what may be considered a two-step subsumption. Kant writes that it is because concepts and intuition are heterogeneous that no straightforward subsumption is possible. That is why the schematism is needed. What Kant proposes is that the mediating element, the schema, shall be homogenous with the sensuous intuition, thus opening the possibility for subsumption under the concept with which the schema is also homogenous. The schema can be thought of as performing a sort of synthesizing translation, such that concept and intuition can combine for coherent experience, and the language of commonality is temporality.

Kemp Smith takes further issue with Kant by positing that the difference between concept and sensible intuition is merely a functional one: “The category is formal and determines structure; intuition yields the content which is thereby organised.

\(^5\) For an explication of this position see Heidegger’s *Kant and the Problem of Metaphysics*, to be discussed in the following chapter.
Accordingly, the ‘third thing’ which Kant postulates as required to bring the category and intuition together, is not properly so describable; it is simply the two co-operating in the manner required for the possibility of experience.” (K.S. 334). Kemp Smith does not elaborate upon what this co-operating ‘manner required’ might be; we are left to assume that it might very well be as Kant describes the process and that Kemp Smith is simply taking issue with Kant’s language. Too much is made of Kant’s use of the word ‘thing’ (as forewarned above); Kant specifies that this third ‘thing’ (again I must point out that this descriptor occurs only once in manner of introduction) is still a representation and no more relies upon thingness than an awareness of phenomena requires knowledge of noumena for Kant. Let us reproduce the offending instance for the sake of clarity: “Obviously there must be some third thing, which is homogeneous on the one hand with the category, and on the other hand with the appearance, and which thus makes the application of the former to the latter possible. This mediating representation must be...” [emphasis mine B177/A138]. It is clear that, on a charitable reading, all Kant is attempting to say by way of introduction is that there is a third thing, in the sense of something third, which is required. If there were even a single other instance of the schema being so described, especially in a text so concerned with objects and our possible knowledge thereof, I might be inclined to lend this objection further credence; but not as it stands.

So, following up his assertion that the schematism does not involve a third thing, which I think we can grant him, Kemp Smith would like to redefine the schematism as a process of synthetic interpretation, rather than subsumption, and for his support, he refers to A124 without citing any particular sentence. I am quite sympathetic to Kemp Smith’s inclination to describe the schematism as synthetic interpretation (I did so myself in the
earlier analogy of the language of temporality), but I do not think that this precludes Kant's general notion of the schematism as facilitating subsumption. However, the passage from the A deduction to which Kemp Smith refers is one of pivotal importance for my own position, so let us explore the matter more fully. A124 runs thus:

All consciousness as truly belongs to an all-comprehensive pure apperception, as all sensible intuition, as representation, does to a pure inner intuition, namely to time. It is this apperception which must be added to pure imagination, in order to render its function intellectual. For since the synthesis of imagination connects the manifold only as it appears in intuition, as, for instance, in the shape of a triangle, it is, though exercised a priori, always in itself sensible. And while concepts, which belong to the understanding, are brought into play through relation of the manifold to the unity of apperception, it is only by means of the imagination that they can be brought into relation to sensible intuition.

A pure imagination, which conditions all a priori knowledge, is thus one of the fundamental faculties of the human soul. By its means we bring the manifold of intuition on the one side, into connection with the condition of the necessary unity of pure apperception on the other. The two extremes, namely sensibility and understanding, must stand in necessary connection with each other through the mediation of this transcendental function of imagination, because otherwise the former, though indeed yielding appearances, would supply no objects of empirical knowledge, and consequently no experience. Actual experience, which is constituted by apprehension, association (reproduction), and finally recognition of appearances, contains in recognition, the last and highest of these merely empirical elements of experience, certain concepts which render possible the formal unity of experience, and therewith all objective validity (truth) of empirical knowledge (CPR, A124 emphasis mine).

I assume that the section which I have underlined is that to which Kemp Smith refers in desiring to stress the functioning between concept and sensible intuition as a process of synthetic interpretation. Since pure productive imagination is a temporally constituting synthesis, as I have argued previously, it remains consistent for Kant to develop the schematism as the explication of this temporal synthesis in term of the categories in particular. What A124 establishes is merely that a synthesis needs to ground the relation...
of concepts and intuitions; this pointing to transcendental imagination as the basis for the relation cannot be the complete account as Kemp Smith wishes. It is the essential temporality of the relation making subsumption possible which gets explicated in the schematism and is not made explicit in A124.

Regarding the productive imagination, and its relation to the schematism, Kemp Smith writes: “Kant’s description of the schema as ‘a third thing’, at once intellectual and sensuous, seems to be in large part due to the transference to it of predicates already applied to the faculty which is supposed to be its source” (K.S. 337). Kemp Smith recognises the key to understanding what is at work in the schematism, namely that pure imagination is the source of schemata, and yet is confused that temporal synthesis is a function of one as well as the other. Kant stresses, again and again, that “the schema of each category contains and makes capable of representation only a determination of time” (CPR, B184/A145).

Speaking of time, the final objection which Kemp Smith brings to bear on the schematism chapter is that the schemata are actually just the categories, and that Kant unjustifiably privileges time (over space) in his account. “Kant’s manner of employing the term ‘category’ is a typical example of his characteristic carelessness in the use of his technical terms. Sometimes it signifies the pure forms of understanding. But more frequently it stands for what he now, for the first time, entitles schemata, namely the pure conceptual forms as modified through relation to time” (K.S., 339). Kemp Smith can

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6 In all fairness, it can be assumed that Kemp Smith later abandoned this objection since his elaboration thereof is based upon an error in the text (A141/B180) where Kant wrote productive imagination, when reproductive imagination is obviously intended. An error which Kemp Smith himself later recognised as typographical when he came to the work of his definitive translation of the Critique; cf. CPR p183, footnote 1.

7 These are actually presented as two separate objections in Kemp Smith’s text but, as I shall demonstrate, they stem from the same misapprehension and so are given together for economy of refutation.
claim that the schemata are the categories only by ignoring that the productive imagination transfers its temporal synthetic power to the schemata, and then being ignorant of the importance of this for any possible experience as relation between concept and sensible intuition. The categories are not temporal, experience is; temporality cannot be derived from sensible experience, it is presupposed by it. The ‘modification through relation to time’ (schematism) is severely underappreciated by Kemp Smith if he thinks that the schemata, with their essential temporal determinations, are still identical with the pure categories. Indeed, it seems that Kemp Smith does not understand the importance of time at all: “It may be asked why Kant in this chapter so completely ignores space. No really satisfactory answer seems to present itself...Kant’s concentration on the temporal aspects of experience is exceedingly arbitrary, and results in certain unfortunate consequences” (K.S., 341). If Kemp Smith is convinced both that no ‘third thing’ is required for the subsumption of appearance under a concept, and that temporality adds nothing of import to a category, it is not surprising that he finds Kant’s emphasis on time ‘arbitrary’. For a concise and lucid rebuttal to this objection we may turn to Henry E, Allison:

Has not Kant here, as well as with the other schemata, unjustifiably ignored space? And is it not necessary that the categories have spatial as well as temporal schemata? The response to this frequently expressed objection is a simple no. It rests upon the failure to distinguish between the sphere of objects to which and the necessary and sufficient conditions under which the categories are to be applied. The sphere includes spatial as well as temporal entities, and thus all objects of possible experience. Nevertheless, the categories relate to these objects in virtue of their temporality. This follows directly from the role given to time as the universal form of all appearances (since all appearances are ‘modifications of inner sense’) (Allison81, 79).
Much of Kemp Smith's objections stem from his apparent desires to keep the various elements (not to say 'things') involved completely separate while discussing a chapter whose primary project is to explain to synthetic temporal functioning of these elements. To ignore the importance of temporality in making experience (as the application of concepts to appearances) possible, is to miss the very possibility for us to know our world, our role in it, and our memories thereof.

Allison's Elaboration of the Schematism: reidentification and memory:

In Henry E. Allison's article "Transcendental Schematism and The Problem of the Synthetic A Priori" we find an account of the schematism which focuses on the relation between the schemata and the categories. It is Allison's position that this relation is both synthetic and a priori, and hence, requires a deduction that Kant does not give but which can be constructed from what Kant does write regarding the categories and the schematism. "Kant claims that, given the category and given time as the form of inner sense, it is possible to provide the schema or the sensible condition for the realization of the category. But he does not give us any clue as to just how this is to be done" (Allison81, 83). It is not my intention here to evaluate either the necessity or the success of Allison's project, but rather to point out that such an attempt to elaborate on the work of the schematism leads to considerations of temporality and, importantly, memory. The article culminates with Allison giving a possible deduction for the pure concept of substance in which he introduces the condition of 'reidentifiability' as a necessary condition for the determination of a manifold which is specifically temporal. This
condition of reidentifiability will be seen to be completely compatible with the assertion of this work; namely that, since the transcendental imagination functions as a transcendental ground of memory, the schemata (as the product of transcendental imagination/memory) will likewise show themselves to be, not only temporal, but mnemonic structures which make experience possible. A brief summation of the relevant points of Allison's article will serve the dual purpose of elucidating the path which leads to Allison's condition of reidentifiability, as well as drawing out the temporal details of the schematism which are essential to my main thesis.

Allison's primary concern is that, while the transcendental deduction shows the concepts to have objective validity in virtue of the transcendental synthesis of imagination, and the principles of pure understanding establish that the schemata are necessary conditions of a temporally ordered world, a deduction is required to link the schemata with the categories. Whether this be so or not, the content of Allison's argument brings to light certain pertinent aspects of the schematism which are well suited for demonstrating that the schemata, as products of transcendental memory, make possible experience within a temporally ordered world. That is, the schemata make possible empirical memory and experience in virtue of being the product of transcendental memory.

Kant describes a schema as a "transcendental determination of time" (A139/B178). In his discussion of this characterisation, Allison is careful to distinguish between schemata, as the conditions of these determinations, and time as the form or condition of intuition:

As conditions of empirical time determination, they [schemata] are certainly conditions in a different sense than space and time themselves. The latter are general forms or conditions of sensibility, that is, conditions under and
with reference to which the data of empirical intuition are given to the mind; while transcendental determinations of time are specific temporal conditions of actual empirical intuitions (empirical time determination). Nevertheless, they are still conditions of empirical intuition and, therefore, pure intuitions in the Kantian sense (Allison81, 73).

If we are to link up schemata with mnemonic structures, this point of Allison's can serve to draw an important contrast: while transcendental imagination is equivalent to a transcendental structure of memory, the schemata, as the products of productive imagination are not yet what we think of as empirical, or actual, memories themselves. The schema of a concept is what makes possible the relation of a concept to an appearance and is not itself an appearance. So too, the mnemonic function, which the schemata are seen to serve, is not the production of memories themselves but their possibility insofar as actual memories require, for their possibility, certain determinations in time which render them comprehensible to us (past, content, order, and duration). Allison's distinction forewarns against confusing the temporal determining that is accomplished by a schema with the form of all appearance as conditioned by time as the form of intuition. The latter is a necessary condition for any intuition whatsoever, prior to any necessary cognition thereof. The former, however, determines the manner in which appearances are temporal and thereby makes possible the cognition thereof. The latter requires that appearances occur in time; the former determines the temporal character of any possible appearance which renders it comprehensible to us.

Allison maintains that a synthetic a priori judgment is required to connect the category with its schema, and that this judgment, in turn, requires a ground. Allison selects two points from the Transcendental Analytic which he considers to be essential to the task of elaborating upon the schematism. These two points are the same ones upon
which this paper has been insisting: "1) that the categories, as rules for the transcendental
synthesis of the imagination, serve to determine time (the form of inner sense), and 2) that
the schema is in each the product of such determination. Assuming these premises, I
believe that it is possible to construct a plausible case for the schemata which Kant
assigns to the categories" (Allison81, 78). What is important to note is that when Allison
is seeking to ground his proposed deduction, he cites the two points which he, rightfully,
views to be the core of the schematism. These points are also what allow for my claim
that the structures of memory are essential to, and identifiable with the possibility of
experience. To rephrase these points in light of this and the previous chapter, we have the
core of the schematism as: 1) that the categories as rules for the condition of the
possibility of memory (transcendental memory/productive imagination) serve to
determine time, and 2) that the past, content of memories, order of memories, and
duration of memories (schemata) are the products of such determinations.

At the conclusion of his article, Allison attempts to give a deduction for the
schema of the category of substance, and it is here that he finds the need to introduce the
notion of reidentifiability as necessary for connecting schema to category:

As indicated above, what we must do is to consider how a specifically
temporal manifold is to be determined i.e., conceptualized, if it is to be
subject to the categorical form of judgment. This is equivalent to
specifying the conditions under which one can say of anything temporal
that it is a real subject of accidents (rather than a merely logical subject of
predicates). Perhaps the most obvious candidate for such a necessary
condition is reidentifiability. Only something that is reidentifiable
throughout a change of states can be distinguished from one or more of
these states and considered as their 'real subject', that is, as something to
which these states pertain as modifications or in which they 'inhere' as
accidents. But in order for something temporal to be reidentifiable, it is
necessary that it endure or be permanent. (Allison81, 81)
The necessary condition of reidentifiability has obvious connections to the assertion that the structures here at work are structures of memory. Indeed, this is why Allison finds reidentifiability an “obvious candidate”. In order to reidentify something across time it must be remembered. Allison does not attempt a deduction for each of the categories but points out a strategy which could be employed to do so. This strategy of deducing the connection between the schema and its category points to the importance of memory for judgments concerning the relation between the two. It is only in virtue of a temporality, which can be expressed in terms of the conditions of possibility for memory, that the connection between concept and appearance is possible. It is not surprising then, that Allison’s attempt to deduce a necessary relation between each schema and its category relies upon the insertion of a condition which points to memory. His article first stresses the importance of distinguishing between time as a form of inner sense and the significant temporal determinations effected by the schemata. Then he emphasizes that the key to understanding the schematism is paying heed to the fact that schemata are the products of transcendental imagination, and hence accomplish temporally determination. Finally, Allison invokes a condition of possibility for deducing the relation between category and schema which ‘obviously’ relies upon structures of memory, just as the relation between category and appearance does.

Conclusion: Conditions of Knowledge and Experience in a Temporally Ordered World:

After an analysis of Kant’s transcendental deduction of the categories, the transcendental unity of apperception was discovered to be the fundamental condition of
all experience. Apperception was revealed, in turn, to depend upon the transcendental synthesis of pure, or productive, imagination. The previous chapter was devoted to establishing that productive imagination (as the synthesis of temporal unification which engenders the possibility for attributing objects to the same consciousness across time) is equally well considered as the necessary condition of possibility for memory. In the concluding pages of the previous chapter (p.26) I wrote that ‘the productive imagination is also the mediating factor between these empirical representations and the unchanging structure of consciousness, transcendental apperception’. This was something of a necessary generalization which required an explication of the schematism to be made more specific and accurate. It is the schemata which, as the products of productive imagination, serve in the role of mediation. This mediation is between appearances (empirical representations) and the categories (as the a priori modes of knowledge in understanding, unified in virtue of transcendental apperception). The schema(ta) for each of the four categories is shown to be identical with the four necessary conditions for human memory: the past, content of the past/memory, the temporal ordering of this content, and the determination of the duration of this ordered content. The analysis of Norman Kemp Smith’s assessment of the schematism shows us that Kant’s account becomes incomprehensible if we misunderstand, or even undervalue, the role of temporality. Further, this essential temporality is directed toward the past and memories thereof. Allison’s article shows us that attempts to elaborate upon Kant’s account of the schematism engender elaborations of the functioning of memory. His attempt to give a deduction of the relation between the schema, and the category, of substance led to the ‘obvious’ condition of reidentifiability, which condition has an equally obvious ground in memory.

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Kant gives multiple articulations on what a schema actually is, the most pertinent formulations for our purpose are those which most explicitly deal with the functioning of the schemata, first a schema is "a transcendental product of imagination, a product which concerns the determination of inner sense in general according to conditions of its form (time), in respect of all representations, so far as these representations are to be connected a priori in one concept in conformity with the unity of apperception" (CPR, B181/A142), and second, a schema consists of "the true and sole conditions under which these concepts obtain relation to objects and so possess significance" (CPR, B185/A146). I wrote in the introduction that human experience is characterised by temporality, our experiences have duration and always occur within time. Kant’s schematism is an attempt to show the possible relation between pure concepts of the understanding and appearances, and this is only possible in virtue of a mediating element which is primarily temporal, that is, an element which makes time determinations. This exposes the implicit project within the schematism that what is needed is not only a mediating element that makes knowledge of, and experience in, the world possible, but also that this knowledge and experience is possible within a world which is always a temporally ordered world for us.

So it is that, when Kant describes a schema as the only condition under which objects can have significance for us, we know that this significance is possible in virtue of the work of schemata, which is temporal determination. Further, these time determinations have the character of determinations of memory. Combining these considerations, we arrive at the conclusion that it is only in virtue of determinations of memory that objects can have significance for us. The world in which we live is,

8 cf Allison81, p66, where Allison finds no less than eight formulations.
fundamentally, temporally ordered, and this order is possible in virtue of determinations of memory.

In the following chapter, an analysis of the principles of understanding (along with the axioms of intuition, anticipations of perception, analogies of experience, and postulates of empirical thought) will reveal that Kant’s conditions of intuition in space and time, as well as the determination of objects in relation to each other, equally depend upon, and prove the necessity of, determinations of memory and the transcendental ground thereof.
Bibliography, Chapter Two

Allison, Henri E. "Transcendental Schematism and the Problem of the Synthetic a priori.”


Chapter Three:

Principles of Pure Understanding: Memory and Experiences:

Introduction:

In the previous two chapters, we have seen Kant's attempts to establish, first the necessary structures of consciousness which make experience possible, and second, the mediating ground which allows for the relation of these structures to the external world as appearance. Both of these projects have been shown to be, not only temporal in nature, but to involve structures of memory as the ground of their possibility and employment. In the following chapter we find an explication of these themes in terms of necessary characteristics of actual experience as predicated upon structures of memory. It is with reference to the Principles of Understanding that we find the site for the most direct elaboration of memory as the fundamental constituent of experience as we know it.

Kant's chapter, the Principles of Pure Understanding, is an attempt to demonstrate the judgments which understanding makes possible a priori. The Schematism chapter was intended to show the universal conditions of the application of pure concepts for synthetic judgments. For his task in the principles Kant continues to use the categories as his guide: "There can be no question that in this enquiry our table of categories is the natural and safe guide. For since it is through the relation of the categories to possible experience that all pure a priori knowledge of understanding has to be constituted, their relation to sensibility in general will exhibit completely and systematically all the
transcendental principles of the use of the understanding” (CPR, A148/B188). Seeking to establish, as his primary purpose in the Critique, the possibility of synthetic a priori judgments, Kant first elaborates upon synthetic judgments themselves, by means of a contrast with analytic judgments.

Analytic and Synthetic Judgments: the Possibility of (Objects of) Experience:

Kant gives the highest principles of analytic and synthetic judgments as, respectively, the principle of contradiction, and the principle that “every object stands under the necessary conditions of synthetic unity of the manifold of intuition in a possible experience” (CPR, B197/A158). Since analytic judgments only involve explications of the concept involved, an analytic judgment can only be either positive or negative; there is no question of relation to another concept. This being so, the principle of contradiction allows for all, which is to say both, possible analytic judgments: “If it is to be affirmative, I ascribe to it [the concept] only what is already thought in it. If it is to be negative I exclude from it only its opposite” (CPR, B193/A154). The matter is not so simple when it comes to synthetic judgments.

The principle of contradiction is a necessary and sufficient condition of truth for analytic judgments, but is merely a necessary negative condition of synthetic judgments, and can never be sufficient for assessing the truth of these latter. This principle cannot give positive knowledge regarding the relation between concepts which are not internally related and so, this relation being the defining characteristic of synthetic judgments, cannot give positive knowledge of synthetic judgments. Synthetic judgments require a
relation between a concept and something which is entirely distinct in thought from that concept.

Granted, then, that we must advance beyond a given concept in order to compare it synthetically with another, a third something is necessary, as that in wherein alone the synthesis of two concepts can be achieved... There is only one whole in which all our all our representations are contained, namely, inner sense and its a priori form, time. The synthesis of representations rests on imagination; and their synthetic unity, which is required for judgment, on the unity of apperception. In these, therefore, [in inner sense, imagination, and apperception], we must look for the possibility of synthetic judgments; and since all three contain the sources of a priori representations, they must also account for the possibility of pure synthetic judgments (CPR, B194/A155)

Since part of the project of the principles of understanding is a demonstration of the relation of the formal conditions of knowledge with experience in its actuality\(^9\), we shall also find the site of explication for my claim that the conditions of experience in a temporally ordered world are the conditions of memory. So it is appropriate here to remind the reader of how Kant’s three sources of possibility for synthetic judgments have been transformed in the course of this analysis. Time, as the form of inner sense, is the condition to which all appearances whatsoever are subject. This is not to be confused however, with either the temporality of lived experience (duration), or the time determinations accomplished by the schemata. Time as the form of inner sense assures that representations occur in time prior to any knowledge thereof; the schemata determine, by contrast, how, or the manner in which, objects occur in time as comprehensible elements of the temporal world.

The imagination which Kant references here is the reproductive, or empirical imagination as opposed to the productive, or pure, imagination. The reproductive

\(^9\) The Schematism demonstrated the relation of the formal conditions of knowledge with experience in its possibility and necessity.
imagination relates to empirical representations: "Their [the concepts of space and time] representation is a mere schema which always stands in relation to the reproductive imagination that calls up and assembles the objects of experience" (CPR, B195/A156). The schematism demonstrated the possibility of the relation between concepts and appearances, but Kant is pointing out here that it is the reproductive imagination which gathers together the appearances to be subsumed under a concept. There are two points here which need to be brought to the fore: the first is a reminder that the reproductive imagination is possible only in virtue of the temporal synthesis of the productive imagination, and the second is that the reproductive imagination can only 'call up' objects of experience from a past of experience. It is here that we find the introduction of empirical memory which has been thus far deferred. In our discussion of the Transcendental Deduction, the synthesis of pure, productive imagination was shown to be necessary precisely because the reproductive imagination relied upon empirical syntheses (the reproductive imagination is the synthesis of representations apprehended in intuition). In order for the reproductive imagination to 'call up' objects of experience, there must first be representations apprehended in intuition; the work of intuition is structurally prior to that of empirical imagination. In other words, the representations which reproductive imagination calls up are always already past, they must be apprehended before they can be organised by imagination. This is not to say all objects of experience are known as objects of the past, but there is a structural ordering at work in every level of the constitution of experience, and this ordering is always temporal (more on this below).

Finally in this triad of the possibility for synthetic judgments comes apperception. In the analysis given of the Transcendental Deduction, it was shown that the primary
importance of apperception is that a consciousness unified across different times is necessary for the possibility of any representation whatsoever. A unified unchanging structure of consciousness (as opposed to empirical consciousness which is ever-changing) is required for objects of intuition to be attributable to the same consciousness. The synthetic unity of the manifold, and hence any possible experience, depends upon this transcendental unity. However, in order for all of these syntheses not only to be meaningful for a consciousness, but also to count as knowledge of objects in the world, representations must relate to actual or possible experience.

The possibility of experience is, then, what gives objective reality to all our a priori modes of knowledge. Experience, however, rests on the synthetic unity of appearances, that is, on a synthesis according to concepts of an object of appearances in general. Apart from such synthesis it would not be knowledge, but a rhapsody of perceptions that would not fit into any context according to rules of a completely interconnected (possible) consciousness, and so would not conform to the necessary unity of apperception. Experience depends, therefore, upon a priori principles of its form, that is, upon universal rules of unity in the synthesis of appearances. Their objective reality, as necessary conditions of experience, and indeed of its very possibility, can always be shown in experience. Apart from this relation synthetic a priori principles are completely impossible. For they have then no third something, that is, no object, in which the synthetic unity can exhibit the objective reality of its concepts.” (CPR, B195/A156-B196/A157)

Pure synthetic judgments, therefore, have objective validity only in virtue of their relation to possible experience. The reality of non-empirical syntheses is imparted to them by experience as empirical synthesis. In this way, a priori knowledge can be true (agree with its object) only as long as it contains that which is necessary for the synthetic unity of experience (CPR, B196/A157). This is why Kant gives the highest principle of synthetic judgment as the requirement that “every object stands under the necessary conditions of synthetic unity of the manifold of intuition in a possible experience”. Synthetic a priori judgments are possible as long as time as the form of inner sense, reproductive
imagination, and apperception are related to a possible empirical knowledge, “we then assert that the conditions of the possibility of experience in general are likewise conditions of the possibility of the objects of experience, and that for this reason they have objective validity in a synthetic a priori judgment” (CPR, B197/A158).

Mathematical and Dynamical Syntheses and the Principles’ Relation to the Categories:

The principles are in fact the products of pure understanding, but they are the very rules according to which knowledge of objects are possible and so are not limited to pure intuitions, “the laws of nature, indeed, one and all, without exception, stand under higher principles of understanding” (CPR, B198/A159). For Kant, appearances and experience are the instantiations of these principles in so far as these principles provide the concept which serves as the condition of any and each appearance or experience of objects. Kant distinguishes two kinds of synthesis in the application of the pure concepts to experience: mathematical and dynamical. Using, once again, the categories as what Kant calls our ‘natural guide’, the table of principles is divided in accordance with the table of categories, the first two of which are considered mathematical syntheses and the latter two, dynamical. The table of principles, in the order in which they correspond to the categories, are: I) Axioms of Intuition, II) Anticipations of Perception, III) Analogies of Experience, and IV) Postulates of Empirical Thought in General. The former two are considered mathematical because “the a priori conditions of intuition are absolutely necessary conditions of any possible experience”, rendering them immediately necessary (CPR, A160/B199). The latter two, however, as the conditions “of the existence of the
objects of a possible empirical intuition are in themselves only accidental” (CPR, A160/B199). The dynamical employment of the syntheses is still a priori necessary, but only, as Kant calls it, mediately and indirectly, since they apply only “under the condition of empirical thought in some experience” (CPR, A160/B200). The Axioms and Anticipations then, correspond to the categories of Quantity (or, as it is understood after its treatment in the schematism, Magnitude), and Quality; these are the mathematical syntheses. The Analogies and Postulates correspond to the categories of Relation and Modality, respectively, and are the dynamical syntheses.

Now, in a note added in the B edition, Kant gives a series of definitions regarding the various kinds of combinations performed by all of these syntheses. As the note is quite concise, and the definitions given are integral to my project here, before proceeding with the analysis of the principles of understanding, I shall reproduce the note here in full:

All combination (conjunctio) is either composition (compositio) or connection (nexus). The former is the synthesis of the manifold where its constituents do not necessarily belong to one another. For example, the two triangles into which a square is divided by its diagonal do not necessarily belong to one another. Such also is the synthesis of the homogeneous in everything which can be mathematically treated. This synthesis can itself be divided into that of aggregation and that of coalition, the former applying to extensive and the latter to intensive quantities. The second mode of combination (nexus) is the synthesis of the manifold so far as its constituents necessarily belong to one another, as, for example, the accident to some substance, or the effect to the cause. It is therefore synthesis of that which, though heterogeneous, is yet represented as combined a priori. This combination, as not being arbitrary and as concerning the connection of the existence of the manifold, I entitle dynamical. Such connection can itself, in turn, be divided into the physical connection of the appearances with one another, and their metaphysical connection in the a priori faculty of knowledge. (CPR, B202)
In the analysis of the schematism of the categories, the concept of magnitude was shown to be the source of the generation of time itself, or the time in which appearances can be ordered. I equated this with the generation of the past itself; it is in virtue of the schema of magnitude that appearances are temporally determined, such that my past is, not only, known as mine, but known as past in a temporal succession. The axioms of intuition which correspond to this category show that this synthesis is indeed indispensable for our experience and knowledge of the world. The schematism demonstrated how appearances can be subsumed under a concept; the principles will show that these concepts are, in fact, the necessary conditions for the kinds of knowledge and experience we have.

Kant gives the principle of the axioms of intuition as follows: “All intuitions are extensive magnitudes” (CPR, A162/B202). All appearances contain an intuition in (space and) time. Empirical consciousness of appearances is possible only in so far as there is a synthesis of the manifold, that generates the space and time that determines representations. Consciousness of this synthetic unity of the manifold in intuition is the work of the concept of magnitude (CPR, A162/B203). Appearances are always extensive magnitudes since it is the generation of the synthetic unity of intuition (concept of magnitude) that makes the representation of appearances possible. As Kant writes: “As intuitions in space or time, they must be represented through the same synthesis whereby space and time in general are determined” (CPR, A126/B203). What makes appearances extensive, rather than intensive, magnitudes is their manner of combination (as per the note cited above). Appearances are composed according to aggregation, that is, the parts
necessarily precede the whole’s representation. As Kant writes of times: “In these I think
to myself only that successive advance from one moment to another, whereby through the
parts of time and their addition a determinate time-magnitude is generated. …only through
successive synthesis of part to part in [the process of] its apprehension can it become
known” (CPR, A163/B204).

We can easily see how this is an explication of the empirical ramifications for the
schematized categories. The schema of magnitude was the generation of the time-series,
or succession. I emphasised that this is also the generation of the past itself, as a past
which could be known as mine. As this relates to empirical consciousness, we see that all
appearances, as subject to the forms of intuition, are also subject to the syntheses whereby
(space and) time become(s) comprehensible to us, that is, are determined. The axioms
of intuition dictate that any appearance whatsoever, as containing the pure intuition of
either space or time, is an extensive magnitude, that is composed as an aggregate, through
the synthesis of parts, or moments, which necessarily precede the representation of the
whole. This successive synthesis which makes all appearance possible, is itself only
possible in virtue of the generation of a past in which the previous moment is retained
while those which succeed it are added. The representation of appearances is possible in
virtue of the work of memory which provides for the retention of moments to be
successively synthesized. This memory is transcendental since it is necessary for the
possibility of any experience whatsoever and is presupposed as the possibility for
empirical memory. The retentive work of memory preserves the components of the

10 In his discussion of the Axioms of Intuition Kant often emphasises the contrast of appearances containing
the pure intuition of either space or time. This can give the misleading impression that the ‘or’ is exclusive
and that it is possible for an appearance to contain the pure intuition of space and not time. We need only to
remember here the assertion of the Transcendental Aesthetic, that space is the form of outer intuition, and
time, as the form inner intuition, is also the form of all intuition. Kant separates the pure intuition of space
in this section to allow for a natural progress to his discussion of geometry that follows.
aggregate through time. This means that every appearance necessarily has its own
duration, not only in terms of its degree of sensation (duration of our awareness of the
appearance), but in its very constitution. Every appearance is possible in virtue of the
duration given to it by memory; the span of retention in the generation of its time-
magnitude. Kant writes “The synthesis of spaces and times, being a synthesis of the
essential forms of all intuition, is what makes possible the apprehension of appearance,
and consequently every outer experience and all knowledge of the objects of such
experience” (CPR, B206/A166). However, we must remember that the form of time, as
the form of outer and inner intuition, is the form of all intuition. Even those appearances
which are represented through the synthesis of spaces must also be composed, in their
aggregation, by the retentive work of memory. So that, for example, when Kant writes “I
cannot represent to myself a line however small, without drawing it in thought, that is,
generating from a point all its parts one after another” (CPR, A162/B203), it is also true
that the representation of this line presupposes the retention of the beginning point as its
successive parts are added. Appearances, as extensive magnitudes, are constituted by a
successive synthesis which is accomplished by the retention of memory.

*Anticipations of Perception: Sensation, Duration, Memory:*

“The principle which anticipates all perceptions, as such, is as follows: In all
appearances sensation and the real which corresponds to it in the object (realitas
phaenomenon), has an intensive magnitude, that is, a degree” (CPR, A166). This is the
formulation of the second principle which is given in the ‘A’ edition of the Critique. It is
to be preferred over the second formulation given in the ‘B’ edition because it stresses that this principle refers to sensations. This is an essential point to bear in mind because it is through sensation that we are related to an object (the real) in so far as the conditions of human knowledge allow. The anticipations of perception provide the connection between empirical consciousness and the formal consciousness of the manifold of space and time. Indeed, it is the addition of sensation to the pure intuition of space and time which yields empirical consciousness. However, whereas the axioms of intuition described the conditions under which any appearance could arise for human consciousness, and so described universal conditions of knowledge, sensation is a matter of subjective representation. As such, it gives us only “the consciousness that the subject is affected...which we relate to an object in general” (CPR, A166/B207). Kant is not here concerned with an enumeration of the possibly infinite number of sensations possible for an empirical subject, but rather with the principle that makes all sensations possible, and this principle is that of anticipation. To understand this we must return to the note on the different kinds of combination (B202).

The axioms of intuition dealt with extensive magnitudes since appearances require a successive synthesis of their parts prior to their representation in intuition as a whole. Such is not the case with sensations: “sensation is not itself an objective representation, and since neither the intuition of space nor that of time is to be met with in it, its magnitude is not extensive but intensive” (CPR, A166/B208). The synthesis involved in sensation is one of composition, like that of intuition, however, unlike intuition that composition is not of aggregates, but a synthesis of coalition. Kant asserts that we can think of sensation as being a continuum from empirical consciousness to pure consciousness: “a gradual transition is possible, the real in the former completely
vanishing and a merely formal *a priori* consciousness of the manifold in space and time remaining” (CPR, A166/B208). The reverse is also possible: a synthesis generates the magnitude of a sensation from the zero point (no empirical content) up to any possible magnitude of sensation. This synthesis (sensation) is instantaneous. It is not an aggregation of parts across time, and this is why it is intensive rather than extensive. The intensity refers also to what we could call the vividness, or affectiveness, of the sensation. “Corresponding to this intensity of sensation, an *intensive magnitude*, that is, a degree of influence in the sense [*i.e.* on the special sense involved], must be ascribed to all objects of perception, in so far as the perception contains sensation” (A166/B208). In any sensation then, there is continuity between the greatest possible intensity of a sensation and its diminution down to the point of its absence from the sense involved. Since the intensity of sensation is a continuum, there is no part thereof which can be determined to be the smallest. Further,

Space and time are *quanta continua*, because no part of them can be given save as enclosed between limits (points or instants), and therefore only in such fashion that this part is itself again a space or a time. Space therefore consists solely of spaces, time solely of times. Points and instants are only limits, that is, mere positions which limit space and time. But positions always presuppose the intuitions which they limit or are intended to limit. (CPR, A169/B211)

Just as Kant demonstrated in the Transcendental Aesthetic that time is not a property of things in themselves but a condition of all human experience, so here we find a deeper explication of this: time as a continuum is not itself intuited. We only ever experience ‘times’, that is, delimited durations within the continuum, made apparent by the intuitions which serve as the limits or instants of that duration. Kant characterizes these magnitudes which serve to limit times as flowing, “since the synthesis of productive imagination
involved in their production is a progression in time, and the continuity of time is
ordinarily designated by the term flowing or flowing away” (CPR, A170/B212).

The reference back to the productive imagination at this point in Kant’s explanation is
instructive; it is in virtue of the temporalizing synthesis of the productive imagination that
the categories could be schematized according to the common ground of time. The
schema of the category of quantity, to which the anticipations of perception are intended
to correspond, is time content, which I have shown to mean the content of memories. The
schema of quality is the synthesis of sensation/perception with the representation of time,
it is the filling of time with empirical content. Thus, the anticipations of perception are
principles of understanding that show how every appearance (in so far as it contains
sensation) must conform to the condition of intensive magnitude; it must have a degree.
This degree is characterized temporally by its instantaneity, it is the filling of time with
instants of a certain intensity, and these instants serve to delimit the flow of time such that
separate empirical ‘times’ can be known to us. This flow of time however, is only known
by us in its very flowing away; empirical duration is comprehensible to us only in virtue
of the instants which limit it, and one limiting instant must always be in the past, while
the other can be either in the past or the present. If the duration is one which extends up
to the present then, of the two limiting instants which bring experienced duration into
relief against the flow of time, one shall be a limit in the past (as the beginning of the
delimited duration) while the other shall be the present itself (as that temporal limit which
experience can never progress beyond). The case is much easier when both limiting
instants are in the past, for this would be a duration which has passed altogether, and so is
not but a memory. This latter case makes the role of memory obvious in our knowledge
of duration, but the former case equally relies upon the faculty of memory. Once again,
this memory is a necessary principle of the understanding in experience for it is presupposed by every experience and empirical memory. Experience in and of the world is always characterized by temporality, and the temporality of experience (as both appearance and sensation) is constituted by duration. As such, every experience requires that at least one of the delimiting instants which make duration possible be in the past. As that faculty which preserves the past into the present, memory is necessary for the possibility of experience.

Experience is not constituted by an uninterrupted progression through time of representations and sensations which begins when we become conscious and ends when we die. Experience is a repeating, overlapping, and relapsing process of navigating the manifold via the conditions of temporality which make experience possible. We do not experience time itself as an eternal continuum. Kant has shown us that the pure form of intuition cannot itself be intuited; rather, we experience objects in time, and it these very appearances which serve to delimit ‘times’ and render temporality comprehensible to us. As Kant writes:

All appearances, then, are continuous magnitudes, alike in their intuition, as extensive, and in their mere perception (sensation, and with it reality) as intensive. If the synthesis of the manifold of appearance is interrupted, we have an aggregate of different appearances, and not appearance as a genuine quantum. Such an aggregate is not generated by continuing without break productive synthesis of a certain kind, but through repetition of an ever-ceasing synthesis. (CPR, A170/B212)

The manifold of appearance is not a quantum because a quantum, as unified, is a continuum, and Kant’s point here is that there is a continuum of intensive (instantaneous) magnitudes in sensation, but that extensive magnitudes (composed through time) as generated by productive synthesis, are compositions of aggregates, not degrees within a
continuum. Both are continuous, but while the intensive magnitudes serve to delimit empirical time as instants, extensive magnitudes are continuous in virtue of the repetition of synthesis of the manifold through time.

Experience of objects is possible in virtue of the duration of experience, and duration is constituted by delimiting instants. Appearances, as extensive magnitudes, are composed through time, but the intensity of the sensation thereof is instantaneous. The former magnitude refers to the extent of the appearance: its duration, complexity, quantity etc. The latter is that which delimits duration and makes it possible; it is the degree of intensity of sensation. In this way, “Intensive magnitude can in different appearances be smaller or greater, although the extensive magnitude of the intuition remains one and the same” (CPR, B214/A173). An extensive magnitude (appearance) need not necessarily change (in its extensity) in order for its intensity (as sensation) to alter by degree. It is this degree of intensity that is anticipated, by the understanding, in every perception. “All knowledge by means of which I am enabled to know and determine a priori what belongs to empirical knowledge may be entitled an anticipation” (CPR, A166/B208). What is anticipated is not the particular content of empirical consciousness, but rather that any empirical content, the real as sensation, will always have a degree of intensity.

“Consequently, though all sensations as such are given only a posteriori, their property of possessing a degree can be known a priori” (CPR, A176/B218). What is anticipated is not the content of empirical consciousness but the synthesis which is always present in empirical consciousness, as its possibility. This synthesis, the possibility of empirical consciousness, is the faculty of memory as expressed in the retention of the beginning instant of ‘a time’, or duration, as the sine qua non of experience.
Analogies of Experience:

Kant gives the principle of the analogies of experience as follows: "Experience is possible only through representation of a necessary connection of perceptions" (CPR, B218). However, in the A edition of the Critique, we find another formulation that is more explicit in terms of the role of time: "All appearances are, as regards their existence, subject *a priori* to rules determining their relation to one another in one time" (CPR, A176). The former version of the principle stresses possibility of experience as a certain representation of perceptions, while the latter emphasises determination in time. We could combine the best aspects of both formulations of this principle and arrive at:

'Experience is possible only in virtue of the a priori determination of perceptions in relation to one another in time'. The rules which shall give expression to this principle are deemed necessary because the perceptions of experience come to us in a completely contingent manner. That is, the perceptions themselves are not internally organised in relation to each other, and thus, on their own, could not constitute a coherent experience. This means that we need rules according to which perceptions are ordered in a coherent way for us. The ordering which the synthesis of apprehension accomplishes is only a combining of the manifold of empirical intuition, and does not serve to order, a priori, these intuitions in terms of their relations to each other or myself. This, as was demonstrated by the schematism, requires a determination of their connection in time. However, "since experience is a knowledge of objects through perceptions, the relation [involved] in the existence of the manifold has to be represented in experience, not as it comes to be constructed in time but as it exists objectively in time" (CPR, B219). It may
seem strange for Kant to write of something being represented ‘objectively’ in time since he has well established that time is an empirically real, but transcendentally ideal, subjective condition of human knowledge. What Kant means by this is that, since time itself cannot be an object of perception, this temporal determination must take place in reference to time in general. That is, the determination of the existence of objects occurs with reference to the modes of time, rather than any empirical time. So it is that the Analogies of Experience relate back to the third category, that of Relation. Only concepts of the understanding can serve the role of grounding the rules which shall connect the existence of objects in time a priori (actually, it is the schematized concepts but more on this latter). So it is that, when Kant gives the three modes of time in which the three rules of necessary connection are to be found, they correspond to the three concepts under the category of relation: duration (Inherence and Subsistence), succession (Causality and Dependence), and coexistence (Community, or Reciprocity).

As a prelude to the actual analogies, Kant gives a summary of the two major temporal aspects of his account thus far, the unity of apperception, and the schematism. Kant points out that the analogies of experience depend upon the unity of apperception since “the original apperception stands in relation to inner sense (the sum of all representations), and indeed a priori to its form, that is, to the time-order of the manifold empirical consciousness” (CPR, A177/B220). The time relations of any conscious experience must be united in original apperception as the ground of productive imagination which, in turn, makes temporal syntheses possible. To remind the reader of our first chapter, all experience, in order to count as mine, must conform to the unity of

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11 Incidentally, since time is the subjective condition for any human knowledge, it is a universal condition and hence is objectively valid for any community of human knowers despite the fact that time is not an attribute of things in themselves.
apperception. The analogies of experience are not concerned with the determination of
the particular identity of undivided appearances, but only with their temporally
determined existence itself, and their relation to one another in virtue of this temporality.
So it is that "since existence cannot be constructed, the principles (of the analogies and
the postulates) can apply only to the relations of existence, and can yield only regulative
principles" (CPR, A179/B222). These principles are to be contrasted with those of the
axioms and anticipations, which were not merely regulative, but constitutive of objects.

These rules are entitles analogies because, as Kant defines analogies, they
demonstrate the equality, not of two quantitative relations, but two qualitative relations.
Kant explains that if "a perception is given in a time relation to some other perception,
then even though this latter is indeterminate, and we consequently cannot decide what it
is, or what its magnitude may be, we may none the less assert that in its existence it is
necessarily connected with the former in time" (CPR, A179/B222). What the analogies
accomplish is the a priori determination of empirical phenomena such that it can be
attributed to the unity of apperception and thus be knowable as an experience of mine.
"An analogy of experience is, therefore, only a rule according to which a unity of
experience may arise from perception" (CPR, B222/A180). Since these rules deal with
empirical perception, it follows that the categories involved must be the schematized
categories as those which can subsume appearances under a concept. Since the analogies
are regulative, rather than constitutive, we must bear in mind that they are valid as
principles of the empirical, and not transcendental employment of the understanding
(CPR, B223/A181). "In the principle itself we do indeed make use of the category, but in
applying it to appearances we substitute for it its schema as the key to its employment, or
rather set it alongside the category, as its restricting condition, and as being what may be
called its formula" (CPR, A181/B224). This should not be surprising since the schematism demonstrated that only time can serve as the mediating factor for the subsumption of appearances under categories, and here we find the application of the rules which stem directly from this subsumption, as expressing the modes of time which render perceptions comprehensible to us.

**First Analogy: Substance and the Past Itself:**

In the discussion of the schematism, the schema of magnitude was the generation of time itself, time-series, which I demonstrated to be the condition of possibility for the past itself as ground for the filling of time with temporally ordered experiences. The first analogy, the principle of the permanence of substance, is the condition of the possibility of the past itself made actual in terms of human experience. We shall see that the first analogy establishes the ground of time in which past representations can be represented as past. In other words, the past of experience itself. Kant's principle of the first analogy runs: "All appearances contain the permanent (substance) as the object itself, and the transitory as its mere determination that is, as a way in which the object exists" (CPR, A182). The manner in which we apprehend the manifold is ever changing and if there were not something unchanging with reference to which we could know the changing, the manifold could never be comprehensible to us as either successive or coexistent. All appearances are subject to the form of time, as the condition of inner sense, and are determined by time as the mediating ground for the application of concepts to appearances. Further, only in time can succession or coexistence (the two elements
necessary for a coherent world) be represented. These considerations lead Kant to the assertion that “the time in which all change of appearances has to be thought, remains and does not change” (CPR, A182/B225). The successive and coexistent temporal aspects of our representations imply a substratum of permanence against which alteration can be known. All representations are determined as either successive or coexistent, “For such determination we require an underlying ground which exists at all times, that is, something abiding and permanent, of which all change and coexistence are only so many ways (modes of time) in which the permanent exists” (CPR, A182/B226). Since all representations are determined in relation to each other either by succession or coexistence, and these only two time relations presuppose a substratum of permanence, the conclusion is that all relations of time are possible in virtue of the permanent. “The permanent is the substratum of the empirical representation of time itself; in it alone is any determination of time possible” (CPR, B226/A183).

In the axioms of intuition, Kant demonstrated that every appearance has a duration as extensive magnitude, and I elaborated this point to show that every appearance is possible in virtue of the duration given to it by memory as the span of retention in the generation of its time-magnitude. What the first analogy contributes to the discussion of the possibility of knowledge and experience being structured upon memory is the past itself. What Kant does not make explicit in his assertion of the necessity for the permanence of substance, is that he is also describing the ground in which the time passes, but a ground that does not itself pass in time. In other words, there is a ground of time that does not pass in time. Kant comes closest to this ground when he writes “Only through the permanent does existence in different parts of the time-series acquire a magnitude which can be entitled duration. For in bare succession existence is always
vanishing and recommencing, and never has the least magnitude” (CPR, B226/A183). Kant’s point here is that the permanent is necessitated as the ground against which duration can appear. However, as I wrote above, this duration is the work of memory in the retention of the instant which marks the beginning of the span of time that endures in our consciousness. Just as Kant points out that the alteration of appearances across time presupposes a permanent ground to render it comprehensible, so too the passage of instants or ‘times’ and durations presupposes a ground of temporal permanence against which this passage is possible and comprehensible. This temporal permanence is the past itself, not the past of the empirical representation of memories, but a permanent past which is the possibility for the consciousness of the passage of time, and the realm in which instants are retained and drawn from.

This permanent past through which time passes, but that does not itself pass is not a past of which we are consciously aware, for it is the possibility for our awareness of our empirical past. The past which we can know is to be thought of as a mode or determination of this permanent past, just as Kant writes “All existence and all change in time have thus to be viewed as simply a mode of the existence of that which remains and persists” (CPR, A183/B227). Substance, as the permanent, is not an object for empirical consciousness, but is presupposed as the condition for the kinds of experience human beings have. Existence and change must be ‘viewed’ as determinations of that which is permanent: substance. In explaining this understanding of the relationship between substance and appearance, Kant has recourse to time as a permanent ground but does not draw out the implications of this: “We can therefore give as appearance the title ‘substance’ just for the reason that we presuppose its existence throughout all time, and that this is not adequately expressed by the word permanence, a term which applies
chiefly to future time. But since the inner necessity of persisting is inseparably bound up with the necessity of always having existed,...” (CPR, A185/B229). What we can draw from this claim is that substance is a concept which is not forward, but backward looking in terms of temporality. Substance is not appropriately understood as pointing to the future in its enduring, but points back to a past in which it has always existed. Further, when Kant writes that, in substance, “we presuppose its existence throughout all time”, he cannot mean the empirical times of consciousness, for this is still at the level of finite delimited time as a subjective condition of human knowledge. What is intended by ‘throughout all time’ must be that, in substance, we presuppose an existence in time which does not pass, in a time that does not pass. Further, this absolute time cannot refer to the future, for as Kant writes, what is required is a ground that always has existed. Neither could this substance refer to a temporality in the present, for a present which does not pass would negate the very possibility of experience as elaborated up to this point. The ultimate foundation for human experience, the application of appearances to the same self across time, would be impossible since there would be no ‘across time’ and hence no possibility for such an application. This is why Kant prefers ‘substance’ to the forward looking ‘permanence’; it is retention and a pre-existing condition of determination that is needed. Indeed, when Kant discusses the coming to be of appearances, it is only with reference to the past that it is comprehensible: “But if we connect the coming to be with things which previously existed, and which persist in existence up to the moment of this coming to be, this latter must be simply a determination of what is permanent in that which precedes it” (CPR, B231/A188). The alteration of appearances presupposes the pre-existence of substance as the unchanging in appearance, but this pre-existence itself requires a ground of time as pre-existing the time in which successive alteration occurs.
With the succession of different instants, or durations, we do not have time itself being succeeded by an altogether other time. This would be absurd and runs contrary to the very possibility of human experience as the synthetic unity of perceptions. There is a ground of time, an unchanging time, in which different instants and duration pass, and from whence they are retrieved by memory. This is why Kant writes (though without seeming to know the full implications thereof): “Permanence, as the abiding correlate of all existence of appearances, of all change and of all concomitance, expresses time in general” (CPR, B226/A183). Time in general here, can refer not only to every determination of time, but also to time itself as the one unchanging ground for the possibility of these determinations. This sense of time is to be distinguished from, both, time as the form of inner sense and the experiential time determined by the schemata. It is my contentious claim that the permanent in relation to which any change is comprehensible is the past itself since all change occurs across time and hence is temporal. It follows that, just as physical change presupposes permanence, so too, if change is always temporal, it presupposes a temporal permanence. Further, Kant acknowledges that “There is only one time in which all different times must be located, not as coexistent but as in succession to one another” (CPR, B232/A189) but is missing the conclusion that this one time is the past itself. This past itself is not my past, or any empirical past, but a principle of the understanding which serves to render experience comprehensible to us.
Second Analogy: Memory as the Possibility for the Present:

Having established the first analogy of experience, regarding the permanence of substance, and the concomitant understanding of alteration, it now befalls Kant to give an account of the coherent ordering of this alteration among representations. Once it is understood that alteration is the changing of appearances (substance being necessarily permanent), it becomes apparent that succession is in need of deeper determination.

It is a fact of experience that things change, not only particular objects but states of affairs, or events. Indeed, experience itself can be seen as nothing other than the awareness of this succession of events. Now, it is not the case that we experience one set of events and then another without any connection between them. This could be thought of as bare succession, or a simple alteration between two states of affairs, but experience works in such a way that the succession from one event to another occurs in a coherent fashion. Not only this, but the very ordering of the succession occurs in such a determinate way that its opposite seems inconceivable to us. That is, not only is there a coherence to the succession from one event to another, but that this event followed from that one, (and not the reverse) seems to us to be an equally necessary component of the experience. The coherence of this transition or succession is precisely what is at issue in Kant's second analogy of experience.

The principle given in the B edition for the second analogy is entitled the principle of succession in time, in accordance with the law of causality, and is given thus: “All alterations take place in conformity with the law of the connection of cause and effect” (CPR, B232). However, the A edition is entitled the principle of production, and runs: “Everything that happens, that is, begins to be, presupposes something upon which it
follows according to a rule” (CPR, A189). Kant points out that this strict determination of one event as following another with necessity, cannot be located in the object for all we know of the object is appearance, nor can our knowledge of such a relation between states of affairs be derived from experience because then it would be merely an induction and could not have the form of necessity with which it is imbued. The pure concepts of the understanding are the only concepts capable of providing determinations which give necessity to a synthetic unity such as the relation of succession between two states. Causality, of course, would be the concept of the understanding which would render possible a determinate relation between two states such that one followed another necessarily.

Citing causality as the source of the coherence of successive states in experience still does not solve all of the problems, however. We still require an account of how it is that this relationship can have objective validity since it appears to be grounded in a merely subjective condition for human experience. It is determination in time, specifically with reference to the past, that our representations can have objective validity.

... appearance never goes back from the succeeding to the preceding point of time, though it does indeed stand in relation to some preceding point of time. The advance, on the other hand, from a given time to the determinate time that follows is a necessary advance. Therefore, since there certainly is something that follows [i.e. that is apprehended as following], I must refer it necessarily to something else which precedes it and upon which it follows in conformity with a rule, that is, of necessity. The event, as the conditioned, thus affords reliable evidence of some condition, and this condition is what determines the event. CPR, B239/A194.

In so far as all knowledge involves a synthesis of the manifold on the part of imagination, these syntheses shall necessarily succeed one another in time; however, the particular ordering of these syntheses is what determines the very object as such. The

12 the implications of these different formulations shall be discussed in what follows.
ordering relationship, grounded in the concept of causality, is a constituting aspect of the object as a determinate object for experience. The concept of causality then, as a subjective condition of human knowledge, is seen to already have its determinate relationship with the object, since it is integral to the very constitution of the object as such.

Kant here refutes the Humean view that the concept of causality is first known to us only through repeated exposure to a particular effect following from a particular cause, that is, that it is empirically inferred. This would render the rule of successive determination merely empirical and not necessary and a priori as Kant demonstrates. The experience of causation presupposes a necessary temporal ordering in the synthesis of perceptions. Further, experience, as characterised by succession, does not only afford evidence of the concept of causality as an a priori condition of experience, but also of this conditioning concept itself expressing memory. The determination of an object as referring back in time to a preceding state is not merely an implied structure of consciousness, but describes how it is that we actually know and experience the world. This means that we are aware of the relation the event bears to its conditioning, preceding state. That is, we remember the preceding state which conditions the event in the present. Indeed, it is only because of this experiential memory that the event can be delimited as its own event, and be known in its temporal position with reference to another event which it succeeds. “When, therefore, I perceive that something happens, this representation first of all contains [the consciousness] that there is something preceding, because only by reference to what precedes does the appearance acquire its time-relation, namely, that of existing after a preceding time in which it itself was not” (CPR, B243/A198). The move from subjective apprehension to objectively valid meaning in
our representations is accomplished in virtue of a rule of the understanding that employs memory in order to determine objects in an objectively valid time-series. The present as we know it, the only way in which we can know it, is conditioned by the past through the work of an implicit memory. The present is constituted by memory in relation to the past, or: “the present, so far as it has come to be, refers us to some preceding state” (CPR, B244/A199). As a formal condition of perception, this rule becomes a law of empirical representation; namely, “that the appearances of past time determine all existences in the succeeding time, and that these latter, as events, can take place only in so far as the appearances of past time determine their existence in time” (CPR, B244/A199). While we need not be consciously aware of this temporal determining act, there must be a form of memory at work in order, not only, to retain the preceding state that accomplishes the determining, but to retain it as relevantly engaged in the very production of our consciousness of the present, that is, of experience. This determining retention of memory is a necessary constituent of experience and so precedes any actual experience, however, it is possible to bring this determination of memory to the level of the empirical, that is, to conscious awareness. This awareness is not of the structure of functioning of the determination of memory, but of the product of the principle. This is the basis for Hume’s claim: we can look back on past experiences and infer empirical rules of causation about the world. This empirical inference requires empirical memory but is possible only in virtue of the temporal determinations made possible by transcendental memory.
Third Analogy: Memory and the Actuality of Experience:

The third analogy of experience deals with the coexistence of appearances and has as its principle: “All substances, in so far as they can be perceived to coexist in space, are in thoroughgoing reciprocity” (CPR, B258). Objects are considered to coexist when our perception of them in empirical intuition does not have a determinate temporal ordering to which our perceptions are necessarily beholden. In other words, the order in which I perceive A and B can readily be reversed. Now, the synthesis of reproductive (empirical) imagination allows for the apprehension of appearances successively but does not determine them as, either, necessarily in sequence (this is what the productive imagination and the category of causality accomplish) or necessarily coexisting. For coexistence is accomplished via the principle of reciprocity as the application of the concept of community. Without this principle, the perception of appearances as coexistent would be merely subjective and could not have the objective validity given it by a necessary condition of human experience. This is equivalent to saying that “the reciprocal sequence is grounded in the object, and so to represent the coexistence as objective” (CPR, A211/B258). If this reciprocity is grounded in the object then there must be mutual interaction between objects and the relation thereof is one of reciprocity or community in coexistence. To claim that things coexist is to claim that they coexist in time, or that they exist at the same time. The question then becomes: How can we know if they exist at the same time? Kant’s reply to this question is that “We do so when the order in the synthesis of apprehension of the manifold is a matter of indifference” (CPR, A211/B258). This order was necessarily determined (not a matter of indifference) in the case of causation, for the cause was seen to determine, and precede, the effect. We
cannot change the order of our perceptions such that we perceive first the effect and then the cause (as they occurred). This should be possible when two objects coexist and do not determine each other according to sequence, but mutually determine each other in reciprocity.

In order to deduce this reciprocity as necessary, Kant supposes its opposite and shows that the absence of this principle of the understanding renders experience impossible. If, in the manifold, each appearance does not act upon every other simultaneous appearance but stands alone, then every appearance would be separated from every other by empty space. If this were the case, then it would follow that “their coexistence would not be an object of a possible perception and that the existence of one could not lead by any path of empirical synthesis to the existence of another” (CPR, A212/B259). Even presupposing that we could have perceptions of each appearance separately, it would be impossible (in the absence of the concept of community) to determine whether one perception follows upon another or is coexistent with it. Since all possible perceptions, as necessarily related to time as the form of inner sense, must be determined in time (and the only possible determinations in time are either as successive or as coexistent), an experience of coexistent objects would be impossible without the determination of reciprocity. There could not be a unified manifold of appearances coexisting for human experience. “In our mind, all appearances, since they are contained in possible experience, must stand in community (communio) of apperception, and in so far as the objects are to be represented as coexisting in connection with each other, they must mutually determine their position in one time, and thereby constitute a whole” (CPR, A214/B261).
This is all well and good, but it is not immediately clear how this analogy ties into
the discussion of memory as a necessary structure of human experience. The third
analogy deals primarily with relations of perceptions in space, albeit within one time as
simultaneous. Nevertheless, the presence of memory shall make itself felt in its role of
constituting the present through retention of the past. For, as Kant writes: “the present, so
far as it has come to be, refers us to some preceding state” (CPR, B244/A199). This is
still true in the case of coexisting object of perception. The turning of our attention from
object A to object B (while it is possible, in virtue of their coexistence, to reverse the
order of perception) still takes time. That is, the coexistence of objects does not make our
perception of any two of them simultaneous in the act of perceiving. In the second
analogy the determining work of memory in constituting the present was necessary, in the
third analogy, its particular temporal ordering of perceptions is contingent but that
memory constitutes the present is still essential. The principle of coexistence ensures the
possibility that objects can be known as coexistent but our empirical experience of this
coexistence occurs only in virtue of the retention of memory. To use Kant’s example, I
can direct my perception first to the moon, then to the earth, or vice versa. Now, the
principle of coexistence makes it a condition of experience that these perceptions are in
reciprocal relation to each other such that I can know them as coexistent. However, it is
only in virtue of memory, in conjunction with this principle, that I retain the perception of
the moon once I look to the earth and know that I can once again turn my attention to the
moon without wondering if it has disappeared. In other words, the experience in the
present of turning my attention, from the moon, to the earth is constituted by the past
moment of perceiving the moon, and it is this mnemonic constitution of experience that
allows me to have knowledge of the coexistence of earth and moon. What the principle of coexistence makes possible for experience, memory makes actual in experience.

Postulates of Empirical Thought:

The fourth and final installment of the principles of the understanding is the postulates of empirical thought. These postulates correspond to the category of Modality, and hence deal with possibility, actuality, and necessity. The postulates are given as follows: “1. That which agrees with the formal conditions of experience, that is, with the conditions of intuition and of concepts, is possible. 2. That which is bound up with the material conditions of experience, that is, with sensation, is actual. 3. That which in its connection with the actual is determined in accordance with universal conditions of experience (that is, exists as) necessary” (CPR, A218/B266). There is little in the explanation of the postulates that sheds light upon our topic here. However, for the sake of clarity I shall show how the points we have established thus far relate to Kant’s postulates.

In elaborating upon the formal conditions of human experience we have found that time is the form of all intuition, as the form of inner sense. Further, in the first chapter I explained that it is the temporal synthesis accomplished by the productive imagination that renders experience possible as necessarily relating to the transcendental unity of apperception. The temporal synthesis of the productive imagination was shown to have the structure of memory such that it is the retention and attribution of representations to the same consciousness across time. This is the fundamental
possibility for experience. Additionally, in the second chapter, I demonstrated that the application of concepts to appearances (schematism) is possible only in virtue of a common ground, and that this mediating element is not only time (as Kant asserts), but the past. The past as mediating element in the application of the categories presupposes the work of memory. We can thus rework Kant’s first postulate to read ‘That which agrees with the formal conditions of experience, that is, with the conditions of time as the form of inner sense, the productive imagination, and the past as ground of the schematized categories, is possible.’

The second postulate deals with the material conditions of experience, or sensation. In the present chapter we have found that every sensation has an extensive and intensive magnitude. The extensive magnitude, the duration of sensation, presupposes the retentive work of memory, for the beginning point (and any point thereafter) of any duration must be retained in order to synthesize succession into the coherence of duration in sensation. Further, Kant demonstrated that intensive magnitudes serve to delimit empirical time as instants. It is this intensive magnitude which is anticipated in every sensation, and this anticipation of an intensity is what provides the beginning instant for the constitution of the duration of sensation. This synthesis is the faculty of memory as expressed in the retention of the beginning instant of ‘a time’, or duration. Extensity in sensation is the awareness of a duration and implies an active application of memory (though not necessarily a conscious application). Intensity of sensation, as anticipation, presupposes memory for the possibility of an actual sensation as the constitution of duration in virtue of intensive instants of which the duration is composed. We can thus rephrase the second postulate: ‘That which is bound up with the material conditions of experience, that is with the intensive and extensive retention of memory in sensation, is
The third postulate refers to that which is bound to the universal and necessary conditions of experience in its actuality: necessity. This postulate is tautological once the previous two have been established and contributes nothing to the topic at issue here, and so I shall proceed to the next section, a discussion of the possible distinction between subjective and objective time.

George and the Problem of Memory’s Absence:

In the article “Van Cleve and Kant’s Analogies”, Rolph George is concerned with finding a defensible position for Kant’s proof in the second analogy of the Principles. The major problem, which he views to be in need of surmounting, is the ordering of subjective time. George distinguishes between objective time, as the time determination of appearances within the time series, from subjective time, or time as the succession of inner apprehensions.

The first difficulty I find in this article is George’s assertion that “in subjective apprehension there is no duration, only succession of ideas” (George, 205). In support of this claim, George cites fragments of the first analogy which, for the sake of the exposition of George’s position, I shall reproduce exactly as he does: “Our apprehension of the manifold of appearances is always successive, and is therefore always changing... But only through the permanent does existence in different parts of the time-series acquire a quantity called duration. For in mere succession by itself existence is always
vanishing and starting, and never has the least magnitude (A182/B225f)” (George, 20513).

George draws two inferences from this quotation. The first is that ‘mere succession’ is not time, and the second seems to be that mere succession refers here to subjective apprehension. For the first inference, it is a small matter to agree that mere succession is not time, if we mean that mere succession and duration are not identical. This point is the very subject of the first analogy. Concerning the second inference of George’s assertion, I cannot be as readily accommodating. In order to clarify both George’s position and my own, I shall cite some of the missing parts of the fragment. The passages in bold indicate those which are not found in the article.

*Our apprehension of the manifold of appearance is always changing. Through it alone we can never determine whether this manifold, as object of experience, is coexistent or in sequence. For such determination we require an underlying ground which exists at all times, that is, something abiding and permanent, of which all change and coexistence are only so many ways (modes of time) in which the permanent exists... Only through the permanent does existence in different parts of the time-series acquire a magnitude which can be entitled duration. For in bare succession existence is always vanishing and recommencing, and never has the least magnitude. Without the permanent there is therefore no time-relation.”* CPR, A182/B226-A183/B227.

The thrust of this passage is now made clear to be the position of Kant’s that any time-determination requires substance (as the permanent). Now George equates ‘mere’, or bare, succession with the succession of ideas in inner apprehension. However, the passage just cited explains that succession and coexistence can only be determined as distinct in virtue of the underlying ground of permanence. It follows then, that there is not such a thing as bare, or ‘mere’ succession (at least not that could be known as such). If we return to George’s equation of bare succession with inner apprehension, we are forced, on this model, to claim either that inner apprehension is impossible, or that it

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13 George is using his own translation of the Prussian Academy version of the Critique of Pure Reason.
could never be an object of knowledge or experience. But let us follow George further into his attempt to solve this problem of two 'times'.

In his elaboration of this problem between objective, or physical, time and subjective time, George turns to the second analogy. He gives his own analogy which is very instructive for my own purposes. I shall reproduce it in full:

As noted, the relation of succession as defined over the moments of physical time, is connected. The same does not hold for subjective time, since the order of arbitrarily chosen mental events from my past is not directly evident to me. How can this order be introduced? Entertain this analogy: Suppose that Adam, on his fifth day, wanted to arrange the preceding four in a temporal series, the days being held in his memory as separate stories, interrupted by sleep. He can introduce the desired order if he has a sufficient repertoire of causal connections acquired within the four days, if he knows that buds come before flowers, that leaves turn from green to yellow, and the like. He will invoke the principle \textit{propter hoc ergo post hoc}. If he went to sleep on one of the days observing a bud, and awoke to a flower, he can infer their order. If a putative day does not fit in, he will set it aside as dream or hallucination.

At the beginning of the Second Analogy Kant speaks of the reversibility in the series of apprehensions of a house, and irreversibility when a ship is seen drifting down a river (A190/B235f). This is not a preliminary version of his argument, but establishes a premiss [sic.] of it: If it is not possible to discern particular irreversible series in subjective time, the \textit{propter hoc ergo post hoc} method can't get started. Kant therefore, first of all, distinguishes irreversible series from the apprehension of static objects. George, 206-7.

I would like to begin by pointing out two things: the first is that there has been a shift from a discussion of the succession of ideas to a discussion of memories, and the second is that I find it encouraging for, and indicative of, the importance of my task here that George turns to a discussion of memory in an attempt to better explain Kant's theory of time (though George himself makes no note of the introduction of memory as especially important in itself). On George's account, Adam can be successful in his project of ordering his previous four days only if he has a 'sufficient repertoire of causal
connections’. These are empirical rules for the succession of appearances, as in the example of flowers following from buds. On this account then, our past can be ordered only through a conscious effort on our part that involves the application of ‘acquired’ rules for the succession of appearances and their instantiation. It should be apparent at this point that George is presupposing a temporal ordering in order for their to be memories, known as past experiences, which Adam then attempts to organise in the order in which they occurred.

The formation of the present, especially a present of remembering the past, is constituted by the past, and so it is more appropriate to write: ‘the causal connections established by those four days’, than ‘within these four days’. Adam does not (or not only) require a ‘causal repertoire’ in order to temporally order his memories. The memories, in a very strong sense, have been pre-ordered. The present is constituted by the past and the past thus reasserts itself in every present. The ordering of experiences does not require conscious effort in the present, this work is accomplished by memory. Why then should these events (once constituted by memory) need conscious formulation when they have become past? The inference of order from awakening to find a flower where once was a bud, presupposes the very synthesis of memory which George deems to require conscious assistance after the fact.

In the discussion of the first analogy we saw that substance, as the permanent, is the past itself; that through which time passes, but which does not itself pass or change. In the second analogy, Kant writes that: “the present, so far as it has come to be, refers us to some preceding state” (CPR, B244/A199). From this we learned that “When, therefore, I perceive that something happens, this representation first of all contains [the consciousness] that there is something preceding, because only by reference to what
precedes does the appearance acquire its time-relation, namely, that of existing after a preceding time in which it itself was not" (CPR, B243/A198). The move from subjective apprehension to objectively valid meaning in our representations is accomplished in virtue of a rule of the understanding that employs memory in order to determine objects in an objectively valid time-series. This occurs in the very constitution of the present, it is not an empirically derived rule which comes to be applied after experience, memory is already implicit before any event becomes past; the present is constituted by memory in relation to the past. What this means is that there is a temporal ordering that must occur before any event or experience can be known as such. The ordering of our past is not possible because we recollect empirical instantiations of causation, our present is already imbued with a temporal determination accomplished by the past, before it ever becomes past. An understanding of the role which memory plays at the very outset of any constitution of experience dissolves the need for the kind of solution which George puts forward in his article, for it dissolves the problem that this solution is designed to address. The issue of the relation of subjective time to an objective time is a non-issue on the model of the past and memory here elaborated.

**Summation:**

Kant’s goal in the Principles of the Understanding is to demonstrate how and what *a priori* knowledge is possible, “For since it is through the relation of the categories to possible experience that all pure *a priori* knowledge of understanding has to be constituted, their relation to sensibility in general will exhibit completely and
systematically all the transcendental principles of the understanding" (CPR, A148/B188). Having discussed the formal conditions of knowledge, and the possibility for the application of these conditions to objects, we have now endeavoured to discover the instantiation of these conditions in experience. The main aspects of these instantiation, as the possibility of experience as we know it, were the axioms of intuition, the anticipations of perception, and the analogies of experience. Through an analysis of the axioms we discovered that the representation of appearances is possible in virtue of the work of memory which retains moments to be successively synthesized. The retentive work of memory preserves the components of an aggregate through time. Successive synthesis yields the duration of experiences without which no delimited experience would be possible. We know the events of our lives in terms of durations, both as we experience these events and as we remember them. To reassert my earlier example: it is not necessary for me to remember my entire life from my tenth birthday up to the present, simply in order to remember my tenth birthday. This is because there is a duration to events and memories; my memory of my tenth birthday itself is composed of fragments of smaller events within that day (cutting the cake, playing hide and seek...). However, waking up the day after my birthday is not included in this memory. The memory of this day actually begins with cutting the cake because it was then, with all eyes on me, that I was intensely aware of the number of people that were there. This intensive moment marks the beginning of the memory's duration and is what Kant meant by an intensive magnitude. The intensity of sensation is what demarcates moments of experienced time for us. It is in virtue of this demarcation that duration is possible, for there must be a starting and finishing point to duration. Every experience requires that at least one of

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14 This is not to say that these demarcations are fixed once and for all. We are all well aware that memories

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the delimiting instants which make duration possible be in the past. As that faculty which preserves the past into the present, memory is the possibility for the duration of experience.

In the first Analogy of experience we found that what Kant describes as substance is a permanent past through which time passes, but that does not itself pass. It is not a past of which we are consciously aware, for it is the possibility for our awareness of our empirical past. The past which we can know is to be thought of as a mode or determination of this permanent past. It is only in reference to the permanent that change can be comprehensible, so too the determination of the present by the past (as demonstrated in the second analogy) implies that the past pre-exists the present. However, it is absurd to suppose that the past which the present shall become pre-exists itself. The past which pre-exists every present is the past in general, or the past itself as the ground of permanence for the knowledge of empirical pasts and that through which the present passes, as determined by an empirical past. This determination is the subject of the second analogy: the principle of succession in time in accordance with the law of causality. Here Kant demonstrates that every object points back to a preceding state. The determination of an object as referring back in time to a preceding state is not merely an implied structure of consciousness, but describes how it is that we actually know and experience the world. This means that we are aware of the relation the event bears to its conditioning, preceding state. That is, we remember the preceding state which conditions the event in the present. “When, therefore, I perceive that something happens, this representation first of all contains [the consciousness] that there is something preceding, can change in terms of clarity and content. Also, the present, as discussed earlier in relation to the anticipations, can serve as the finishing point of a duration; this is how an experience of the present is possible.
because only by reference to what precedes does the appearance acquire its time-relation, namely, that of existing after a preceding time in which it itself was not” (CPR, B243/A198). The temporality of subjective apprehension acquires an objective meaning in our representations in virtue of memory determination of objects in an objectively valid time-series. This is what renders George’s problem with subjective time a non-problem. He introduces memory into the equation too late, and only in its empirical employment. An understanding of the temporal structures at work in the very constitution of experience reveals memory to always already be involved. It is because the constitution of experience in the present is accomplished by memory, that temporal ordering in the past is possible. However, as the third analogy demonstrates, this does not mean that memory is not also at work in our experience of the present while it is still present. The representation of the manifold as a whole requires a rule for representing objects as coexisting, or simultaneous. All objects of experience are determined in time and there are only two means of determination: successive or coexistence. Those objects which are causally related are determined as successive, while those are determined to coexist that are in a relation of community or reciprocity. When objects are related by succession, it is impossible for our perception of the effect to precede that of the cause. With reciprocity, however, we may turn our attention from one object to another (and back again) in whichever order we list. This is, in fact, how we encounter the world at large in our everyday lives. When crossing the street, for example, we can look up the street for oncoming traffic, and then look down the street for traffic. What is important to note here is that, i) it is possible to look down the street then up the street, and ii) you need not check the same direction twice\(^{15}\). The principle of coexistence makes it a condition of

\(^{15}\) depending of course on the speed of traffic and visibility.
experience that the perceptions of ‘up’ and ‘down’ the street are in reciprocal relation to each other such that I can know them as coexistent. However, it is only in virtue of memory, in conjunction with this principle, that I retain the perception of traffic being clear up the street once I look down the street. I know that I can turn my attention back up the street without wondering if it has disappeared but, provided I had a good view, this is unnecessary. I know I have already checked that direction for traffic and that the state of ‘being devoid of traffic’ for that direction coexists with the same state in the opposite direction. In other words, the experience in the present of turning my attention, from one direction of traffic to the other is constituted by the past moment of perception, and it is this mnemonic constitution of experience that allows me to have knowledge of the coexistence of both directions of traffic being clear. As I wrote above: ‘What the principle of coexistence makes possible for experience, memory makes actual in experience.’

So it is that memory makes possible experience as it is known in its main characteristics: the constitution of duration in its extensity and intensity, experience as present in virtue of the determination of the past, and the possibility for a unified manifold of perceptual experience.
Bibliography, Chapter Three


Conclusion

In what has preceded, we have followed Kant through his attempts to establish the necessary structures for human experience, the possibility for the application of these structures to the external world, and the instantiation of these structures in experience itself. Beginning with the deduction of the categories, Kant emphasized the absolute importance of having a unified consciousness as the ground for the possibility of a priori knowledge. Experience, for Kant, can only count as such if we are conscious of it. The three syntheses encountered in the deduction serve to unify representations for consciousness, but this is not enough. Empirical consciousness has as its content an ever-changing array of phenomena, an unchanging unified consciousness is required as the ground for this fluctuating consciousness. This ground is the transcendental unity of apperception. This unchanging consciousness is of the utmost importance for Kant because this is the only way that objects can count as intuited by the same consciousness. In other words, since experience is only possible if we are conscious of it, there must be a stability to consciousness such that this awareness is possible by the same consciousness across time. This stability finds its ground in the transcendental unity of apperception. Only in virtue of a structure of consciousness that remains the same through time, can there be a coherent attribution of intuitions to a knowing subject. As Kant writes: “it is precisely because I ascribe every perception to one consciousness that I can say of each perception that I am conscious of it” (CPR, A122). The synthesis which renders possible the attribution of perceptions to this unified consciousness is the productive imagination. It is obvious that the main concern of the deduction of the categories is the attribution of perceptions to the same consciousness across time. This means that the productive
imagination must be temporal in its functioning; it is to relate perceptions that occur within time to a unified consciousness which remains the same across time. What is being described here is a transcendental structure of memory. It is a structure of memory because it ascribes perceptions in time to the same consciousness across time, not only this, but as Kant stresses, productive imagination ascribes them as belonging to that consciousness. This structure of memory is transcendental because it is a necessary universal a priori structure that makes reproductive imagination/empirical memory possible, and is the possibility for temporality while it is itself extra-temporal. The extra-temporality of the productive imagination is best exemplified in the schema of magnitude, or time-series.

The goal of the schematism is to demonstrate how appearances can be subsumed under a concept. This task requires a mediating ground which is seen to be a “transcendental determination of time” (CPR, B177/A138). The transcendental synthesis of productive imagination (what I call the transcendental structure of memory), is a ground for the rules of the association of appearances. When Kant is introducing the productive imagination, he describes its necessity as follows:

There must, therefore, be an objective ground (that is, one that can be comprehended a priori, antecedently to all empirical laws of the imagination) upon which rests the possibility, nay, the necessity, of a law that extends to all appearances – a ground, namely, which constrains us to regard all appearances as data of the senses that must be associable in themselves and subject to universal rules of a thoroughgoing connection in their reproduction. CPR, A122

The schemata are time-determinations which render possible the subsumption of appearances under concepts in four determinate ways corresponding to the four categories of the understanding. The first of these is the schema of magnitude, and is characterised
by Kant as "a unity due to my generating time itself" (CPR, B182/A143). I elaborated upon this point to show that the generation of time itself as successive is fundamental for knowledge of a past which is my past. The schema of magnitude is a temporal determination (like every schema), one that allows for the attribution of a past to the same consciousness across time. That is, the generation of time itself amounts to the generation of the passage of time as belonging to a specific consciousness, namely mine. The time that is generated is not the future, this would be inconceivable, but time as successive, which means time as the passage of the present into the past. This is why the generation of time itself, must be thought of as the generation of a past which is meaningful for consciousness.

Now, to return to the question of the extra-temporality of the transcendental structure of memory. The productive imagination, which I equate with this structure of memory for reasons given above, is described by Kant as the ground of the universal rules which govern appearances. The temporal determinations of the schemata are just such universal rules according to which the subsumption of appearances under concepts becomes possible. As Kant writes: "The schema is in itself always a product of imagination" (CPR, B179/A140), and further, "the schema of sensible concepts, such as figures in space, is a product and as it were, a monogram, of pure a priori imagination, through which and in accordance with which, images themselves first become possible" (CPR, B181/A142). The schemata are always products of the productive imagination/transcendental memory, they presuppose transcendental memory as their ground. We can think back to the distinction between productive and reproductive imagination made in the deduction of the categories. The reproductive imagination is a synthesis which determines the connections between empirical representations for
empirical consciousness. This is an empirical synthesis since it requires appearances as the matter which is reproduced. The synthesis of the reproductive imagination supplies us with associations such as those made between empirical causes and effects. We can reassert George's example here of noticing that buds on trees bloom into flowers. This is an empirical association that presupposes the objective ground of the rule which is being applied. This rule grounding is accomplished by the productive imagination. The reproductive imagination associates appearances at the empirical level, while the productive imagination provides the ground for the rules of those associations (in this example, causation). So it is with the relation of transcendental memory to the schemata which are products. Transcendental memory cannot be subject to time, for it is the very ground of the determination which generates time itself.

The exegesis of the schemata as products of a transcendental structure of memory showed the schemata to be temporal determinations which accomplished the generation of the past (time-series), the filling of the past with a content, or empirical memories (time-content), the ordering of this content within the past (time-order), and the duration of memories (scope of time). This last temporal determination, accomplished by the schema of modality, is not to be confused with the first two principles of the understanding which establish the necessity of duration for any possible experience. The schema is a temporal determination which establishes that appearances must be determined according to their duration in order to be subsumed under a concept. The first two principles of the understanding (axioms and intuitions) demonstrate how every actual experience is constituted by duration.

Experience, in its actuality, is always characterised by duration, instants which both constitutes and delimit duration, and a present which is determinately known by way
of the past. These three universal characteristics of any possible experience are elaborated in the Axioms of Intuition, the Anticipations of Perception, and the Analogies of Experience respectively. In the axioms we discovered that duration is a necessary aspect of our intuitions and that this presupposed the retentive power of memory in order to constitute an intuition which must necessarily endure through time, no matter the infinitesimal length of that duration. The anticipations of perception demonstrated the necessity of an intensive magnitude in sensations, such that moments, or instants, of temporal experience are relevant for us. The instants serve to delimit duration into, what comes to be known as, an event. It is, again, the retention of memory that allows for the implicit preservation of that instant which serves as the beginning point of an event, or duration, through time to that instant which delimits the event as completed (at least in our memory or knowledge of it). The analogies of experience serve to show how, once the possibility for duration and experiential events has been established, memory is at work in every actual experience itself. In the first analogy, Kant established that the experience of change requires an unchanging ground against which alteration can be known: substance. I followed Kant's account with one of my own regarding the temporality of experience which demonstrated that, in so far as appearances are always temporally determined, changes in appearance through time, presuppose a temporal substance through which time can pass, but which does not itself pass in time. This ground of the passage in time is the past itself, as that permanence though which the passing of empirical instants, durations, and events becomes comprehensible as moving into a past. We cannot think of events as becoming past, no longer being present yet not completely absent from our consciousness, if the passage of time did not have a general, unchanging past against which to think this temporal alteration. Once again, we see the
importance of the extra-temporality of transcendental memory as the ground for the schema of magnitude (time-generation), which in turn gives rise to restrictions of the conditions of sensibility of which the principles are the expression. It is because the transcendental structure of memory is the extra-temporal ground of the schema that conditions the principles governing experience that past events are comprehensible as past, and as mine. All of the principles of the understanding are possible in virtue of the temporal determination of appearances that ensures the applicability of the necessary structures of human consciousness to the world. This temporal determination is provided by the mediation of the schemata as conditions of sensibility that have the transcendental structure of memory (productive imagination) as their ground.

We can characterise Kant's epistemological project in the Critique of Pure Reason as having three overarching levels of discussion: the structure of human consciousness, the applicability of these structures to the world (as appearance), and the resultant necessary characteristics of experience itself. I have argued here that the most important characteristic of the structure of human consciousness is, what I have termed, the transcendental structure of memory. This coincides with Kant's own point that, for any knowledge to be possible, we must be able to attribute myriad experiences to the same self across time.

We have also seen, through a survey of some of the relevant secondary literature, that many of the difficulties in the field of Kant scholarship can be resolved through a charitable reading of Kant, and an understanding of the understressed role of memory in the structure of human consciousness and experience. Further, many of the difficulties encountered in the text dissolve if the importance of the role of memory is brought to the forefront of our reading of the Critique of Pure Reason. It is indeed a wonder that
memory plays a negligible role in Kant's explicit account of the possibility of human experience but, as I have hopefully demonstrated, the important role of this faculty of the human mind can be read into Kant's account without doing any injustice to the text.

Our knowledge of the world, and of ourselves as meaningfully involved therein depends entirely upon our ability to self-ascribe events and experiences. This ability cannot be gleaned from a theoretically 'raw' experiential base, for there would be no anchor or reference point from which to begin such an epistemological project. There must be a structure of consciousness which makes the attribution of experiences to a self through time possible, and this structure is none other than that of memory.
Bibliography

Vita Auctoris

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