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KANT'S TRANSCENDENTAL DEDUCTIONS
A New Elucidation

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ABSTRACT

In his Transcendental Deductions of the categories, Kant purports to show that we have the right to employ our basic *a priori* concepts of a thing in general, e.g. the concept of causality, in cognition of the objects of experience. In Kant's view, these concepts can thus be applied to observable phenomena. On the other hand, his Deductions deny us any cognition of things as they are in themselves, independently of our experience. These arguments ground not only his theoretical philosophy but his practical philosophy as well, in that they leave room for the possibility of freedom of the will.

This dissertation presents a new elucidation of the Deductions by giving emphasis on Kant's account of perceptual awareness. I argue that we can understand the Deductions by placing Kant's account of perceptual awareness in its historical context. I show that Johann Tetens' criticism of Christian Wolff's account of perception had a crucial influence on Kant's account, and that by giving attention to this influence we can understand the design of the Deductions, which establish the objective validity of the categories to objects of experience by showing that perceptual awareness is possible only through the same *a priori* rules that are represented generally in the categories.

Keywords: cognition, perception, consciousness, early modern philosophy.

TIIVISTELMÄ

Kant pyrki osoittamaan kategorioiden transsendentaalisilla deduktioillaan, että olemme oikeutettuja käyttämään perustavia a priori -käsitteitä, esimerkiksi kausaliteetin käsitettä, kokemuksen objekteja koskevassa kognitiiossamme. Kantin käsityksen mukaan näitä käsitteitä voidaan soveltaa havaittavissa oleviin ilmentymiin. Toisaalta hänen deduktionsa rajaavat oliot sellaisena kuin ne ovat itsessään, kokemuksestamme riippumatta, kognitiomme ulkopuolelle. Kantin argumentit ovat paitsi hänen teoreettisen filosofiansa myös hänen käytännöllisen filosofiansa perusta, sillä ne jättävät tilaa tahdonvapauden mahdollisuudelle.

Tässä väitöskirjassa pyrin valaisemaan Kantin deduktioita nostamalla esiin hänen käsityksensä havaintotietoisuudesta. Väitän, että voimme ymmärtää deduktiot asettamalla Kantin käsityksen havaintotietoisuudesta historialliseen kontekstiinsa. Osoitan, että Johann Tetensin esittämällä kritiikillä Christian Wolffin havaintokäsitystä kohtaan oli ratkaiseva vaikutus Kantin havaintokäsitykseen ja että huomioimalla tämän vaikutuksen voimme ymmärtää hänen deduktionsa, joissa hän osoittaa kategorioiden objektiivisen pätevyyden kokemuksen objekteihin nähden osoittamalla, että havaintotietoisuus edellyttää ne samat a priori -säännöt, jotka representoidaan yleisesti kategorioissa.

Asiasanat: kognitio, havainto, tietoisuus, uuden ajan alun filosofia.

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PREFACE

Human reason has the peculiar fate in one of its cognitions that it is burdened with questions which it cannot dismiss, since they are given to it as problems by nature of reason itself, but which it also cannot answer, since they transcend every capacity of human reason.¹

This is how Kant begins the Preface to the 1781 edition (the A edition) of his *Critique of Pure Reason*. The unhappy situation to which reason has been doomed is called metaphysics, and it concerns questions regarding the existence of God, freedom of the will and immortality of the soul. These questions haunt us and yet reason cannot answer them.

The only way out of this conundrum, Kant thinks, is to assume the task of self-knowledge. Reason must “institute a court of justice, by which reason may secure its rightful claims while dismissing all its groundless pretensions.”² This is the task of his critique of pure reason, and its starting-point is transcendental idealism, a theory Kant presents in the Transcendental Aesthetic of the *Critique*. Transcendental idealism claims that space and time are not things in themselves but forms of our intuition. Everything that can come before our senses is in space and time. Consequently, the objects we perceive are mere appearances and not things in themselves. They are empirically real but transcendently ideal.

¹ A VII. References to the *Critique of Pure Reason* follow the standard practice of indicating A edition (1781) and/or B edition (1787) pagination. All other references to Kant’s works are by volume and page number of the Academy edition (Ak.) of Kant’s *Gesammelte Werke*. Translations follow the Cambridge University Press editions of the Works of Immanuel Kant (general editors Paul Guyer and Allen Wood).

² A XI.

On this foundation Kant institutes his court of justice which will, as he boldly asserts, solve all metaphysical problems. The most important task of this court is to determine what and how much understanding and reason can cognize free of all experience. Since the use of understanding and reason is based on concepts, he must first prove that there are *a priori* concepts that apply to the objects of experience. This he sets out to accomplish in the Transcendental Deduction of the pure concepts of the understanding.

These concepts, the categories, are the *a priori* concepts on which the use of reason is based. That these concepts must be *a priori* is, Kant maintains, beyond doubt. If reason is to cognize anything at all, its basic concepts must be *a priori*. Take the concept of cause for example. It asserts a necessity that cannot be drawn from experience, so in order to be able to use this concept legitimately we have to prove that there are objects that correspond to it. Such a proof would show the objective reality of the concept, but that is not Kant's only concern. He also wants to investigate whether it could be proved that all possible objects that can come before our senses obey the laws of nature. In other words, he wants to investigate whether all physical phenomena are subject to that necessity and whether the action of mental beings in the world of sense is causally determined. In the Transcendental Deductions Kant thus aims to show that the categories ground our rightful claims about the world, but he also aims at determining the limits of our knowledge. The task couldn't be more important. Kant thinks that a deduction of the categories will put us in a position to answer the most fundamental questions of human existence: What can I know? What should I do? What may I hope?

INTRODUCTION

I

It is an age-old problem of theories of visual perception that spatial properties such as distance, shape and size cannot be represented in the sense organ itself and that the representation of these properties thus presupposes an act of apprehending the representation produced by the sense organ. The perception of a circle oblique to the line of sight serves as a good example: although an ellipse is projected on the retina, what we perceive is a slanted circle. Thus, our experience of objects in a three-dimensional world cannot be explained solely by means of the immediate mental representation produced by an image projected on the retina.

This suggests that the objects we perceive are, at least to some extent, of our own making. Taking this fact into account is essential in attempting to prove the objective validity of our basic *a priori* concepts. We therefore have to make sure that we understand how Kant thought that the mind is active in perception, and that question has its roots in the development of the theory of vision.

The Islamic natural philosopher Alhazen (or Ibn al-Haytham, c. 965–1039) seems to be the first to have presented an intromissionist visual theory (according to which something proceeds from the object to the eye and not from the eye to the air) that not only applied geometrical optics but also gave an account of the psychology of vision.³ Alhazen's theory is a two-stage theory, according to which the two-dimensional data provided by the eye and carried by the optic nerves is apprehended by a facul-

³ Ibn al-Haytham, *Optics*. See also Hatfield and Epstein, "Sensory Core", 367–371.

ty of sense – the last sentient or *ultimum sentiens* – through an act that enables us to perceive three-dimensional objects. What is of particular interest to us here is that according to Alhazen, our vision of *objects* necessarily involves mental operations. Book I of his *Optics* is an account of the physical and physiological conditions of vision, which do not concern us here, but book II deals with those mental operations that are necessary for seeing objects.⁴ Although the present study is not about visual perception, understanding the nature of those mental operations required for representing physical objects is a key issue in understanding Kant's Transcendental Deductions.

The introduction of mental operations in a theory of vision is a consequence of taking an intromissionist approach to the physics of vision. In an extramissionist theory there is no need to explain how the soul can represent the forms of particular objects of vision, because according to such a theory vision occurs through the extremities of the ray issuing from the eye and ending at the object. An intromissionist theory, by contrast, has more explaining to do, as Alhazen notes:

[I]f vision takes place by means of a form which passes from the visible object to the eye, and if the form occurs within the eye, then why does sight perceive the object in its own place outside the eye while its form exists inside the eye?⁵

Alhazen's answer was that vision is not accomplished solely by what he called pure sensation, namely light as such and colour as such, but “by means of discernment and prior knowledge”.⁶ Let us take a glance at what this means.

⁴ See Sabra, “Sensation and Inference”, 161.

⁵ Ibn al-Haytham, *Optics*, 149.

⁶ Ibn al-Haytham, *Optics*, 130 and 149–150.

Alhazen's view is that pure sensation alone does not yield any state of consciousness.⁷ The effect of the light in the eye is "of the nature of pain", and the lights "are all of the same kind and they vary only by more or less".⁸ Alhazen concludes that a perception of an object cannot be reached by pure sensation alone and that the *ultimum sentiens* perceives the forms of visible objects from the sensation of light, colour and order occurring in the common nerve.⁹

All objects of vision are for Alhazen properties of physical bodies. Of the properties that inhere or occur in bodies the sense of sight perceives only colour and light by pure sensation, whereas perception of all other visible properties requires apprehension by the faculty of judgement (*virtus distinctiva*) through acts of comparison, discernment and inference. Discernment takes place when the *ultimum sentiens* perceives the forms of the visible objects, and these forms are produced in the eye by the forms of colours and lights of the visible objects. Thus, apprehension is an act of the faculty of judgement and it is grounded on the perception of the forms of sensations, i.e. of forms that are produced in the eye and differ from the form of the objects. The perception of three-dimensional objects is thus made possible through the act of apprehension by the faculty of judgement. The true forms of visible objects we perceive by means of the co-operation of the eye and judgement. When the subject moves her eye over the whole surface of the object, her sense gains a succession of perceptions, which the judgement can discern and compare with similar, known properties. As a result, the subject will gain all properties belonging to the object, and the structure of the whole object that is made up from them will be formed in the imagina-

⁷ Sabra, "Sensation and Inference", 173–174.

⁸ Ibn al-Haytham, *Optics*, 84. Alhazen notes that pains that do not disturb the organ are mild so that they are not felt and the subject does not judge them as pains on account of their mildness.

⁹ Ibn al-Haytham, *Optics*, 88–89.

tion. The form of that object will remain in the soul and take shape in the imagination.¹⁰

Alhazen gave a detailed account of the action of the faculty of judgement in producing the true form of visible objects. He begins his analysis by considering how sight perceives the similarity of two individual objects. The objects have the same form and the perception is of those two objects and of their similarity. However, the similarity of the forms is not the same as these forms themselves or either of the objects. Nor does the eye produce a third form that the sense of sight could perceive. The similarity of the two objects, Alhazen notes, is their agreement in respect of a certain property and the existence of that property in each of them. He concludes that perception of similarity is due to an act of comparing:

Consequently, the similarity of the two forms can only be perceived by comparing one of them with the other and perceiving in each of them that property in respect of which they are similar. And since the sense of sight perceives similarity, and there does not exist in the eye a third form from which similarity can be perceived, and similarity is perceptible only by comparing the two forms one with the other, then the sense of sight perceives the similarity of two forms only by comparing the two forms produced in the eye with one another.¹¹

The conclusion from this is that the sense of sight's perception of similarity and dissimilarity of forms is not by pure sensation, but rather by comparing the forms it perceives by pure sensation. In like manner, the sense of sight's perception of the similarity and dissimilarity of colours and lights, as well as of the outlines and structures of the forms of visible bodies, is due to

¹⁰ Ibn al-Haytham, *Optics*, 138–140 and 209–211. See also Sabra, “Sensation and Inference”, 169–171.

¹¹ Ibn al-Haytham, *Optics*, 126–127.

acts of distinguishing and comparing. Even the perception of two similar colours, say two greens, of which one is brighter than the other, requires a distinguishing between these colours and a judgement (*distinctio*) that they are of the same kind.¹²

The important conclusion here is that perception of visible objects involves inference, and Alhazen thinks that perception by recognition (*comprehensio per cognitionem*) plays a major role in this inferential action. It is only by recognition that sight perceives what a visible object is. By recognition Alhazen refers to perception of the similarity of two forms,

namely the form which the sight perceives of the visible object at the time of recognition, and the form it perceived of that object or of a similar one in a first instance, or in earlier instances if the sight has perceived that object or others like it many times.¹³

Based on this, it is obvious that recognition is not possible without remembering, and it is thus not perception by pure sensation but through a kind of inference. However, this inference is distinct from all other inferences, for it does not occur as a result of inspecting all properties in the form but through perception of signs. When sight perceives one of the properties in the form, while remembering the first form, it recognizes the form. This explains why this inference occurs in an extremely short interval of time and typically goes unnoticed. The shape or size of a body, among other properties of visible bodies, is usually perceived extremely quickly the perceiver not being aware of having perceived them by inference and judgement, because the faculty of judgement has become accustomed to discerning these properties.¹⁴

¹² Ibn al-Haytham, *Optics*, 126–127.

¹³ Ibn al-Haytham, *Optics*, 129.

¹⁴ Ibn al-Haytham, *Optics*, 130–131.

Recognition can be of an individual object or of a species. In the case of an individual object, recognition occurs as a result of comparing the subject's present perception of the form of the object with the form it has previously perceived from it. In the case of a species, recognition occurs as a result of comparing the form of the object with that of similar individuals of the same species. Interestingly, the universal form required for the latter kind of recognition is of empirical origin. Universal forms are produced in the soul for the species of visible objects and they take shape in the imagination. The appearance and shape, and possibly colour and some other properties, are common to all individuals of a species while individuals differ in respect of particular properties which are also visible. As the sight repeatedly perceives the individuals of one species, the universal form in that species will be repeatedly presented to it together with the difference between the particular forms of those individuals. From the difference between particular forms that accompany the universal forms the soul will perceive the universal form of that species.¹⁵

Thus, through the distinguishing and comparing action of the faculty of judgement the soul gains the skill of perceiving visible objects. The soul receives from the surrounding physical world nothing except colour as such and light as such. Perception of objects thus requires action of the faculty of judgement. Even the perception of the quiddity of colour depends on distinguishing and comparing. Alhazen thought that it is in the nature of man to judge and to make inferences and that he or she always discerns and compares things with one another naturally without effort and exercise of deliberate thought. He says that it can be shown that a child constantly makes inferences without knowing what an inference is, and so the human soul must make inferences by nature.¹⁶

¹⁵ Ibn al-Haytham, *Optics*, 240.

¹⁶ Ibn al-Haytham, *Optics*, 136–137.

However, recognition is not the only kind of inference made in perception, and indeed, since recognition presupposes repetition and since all we receive from the outside world is colour as such and light as such, judgement and inference beyond recognition is needed to get the process of perceiving visible objects started.¹⁷ Nevertheless, perception of what visible objects are is due to recognition of forms:

It is on these forms that the sentient relies in perceiving what the visible objects are, because perception of what they are is due only to recognition, and recognition results from comparing the form presently perceived by sight with the form that has been fixed in the soul by the forms of objects already seen, and from likening the presently perceived form to one of the forms in the imagination.¹⁸

On the other hand, conclusions of syllogisms are also perceived by the faculty of judgement, and also these inferences can occur without awareness of the act of judgement. Alhazen asks us to consider someone saying, “How effective this sword is!”, and notes that a listener will immediately understand that the sword is sharp. This must, according to Alhazen, be due to the universal premise “Every effective sword is sharp”.¹⁹

Now, the manner of perception in these inferences, where the inference itself is not noticed, is only accessible to us through a second inference, which cannot occur at the moment of perception. This second inference is not an inference that can be performed extremely quickly, and it is thus an inference that we can deliberately make.²⁰ In this way Alhazen builds a theory of visual perception that presents the faculty of judgement as a capacity

¹⁷ Ibn al-Haytham, *Optics*, 130 and 137.

¹⁸ Ibn al-Haytham, *Optics*, 214.

¹⁹ Ibn al-Haytham, *Optics*, 131.

²⁰ Ibn al-Haytham, *Optics*, 135.

operating in not only conscious inferences but also in inferences that first make possible our consciousness of visible objects in perception.

II

In this study, my aim is to make intelligible Kant's Transcendental Deductions of the categories in the two editions of the *Critique of Pure Reason* (the A and B edition). The purpose of these Deductions is to prove the objective validity of the pure concepts of the understanding. In other words, Kant's aim is to prove that we are justified in applying these concepts to the objects we perceive. Perception itself is not Kant's main concern, but without knowing what Kant thought perception to be, there is no hope of making the Deductions intelligible. Although Alhazen's theory was by Kant's time outdated (if also well known), there is something persisting in Alhazen's thoughts, and we may benefit from placing Kant's account of perception within a long tradition of thinking about perception.

To express the matter somewhat anachronistically, Alhazen thought that the impressions, which the subject receives through the sense of sight cannot by themselves produce perception of visible objects. Rather, the mind must act on the form that these impressions take in the subject and it must produce, with the aid of imagination, objects of vision through unnoticed acts of distinguishing and comparing. It is only through this activity that we can perceive physical bodies. Now, if we disregard what the form of these impressions in this theory is, Kant would have agreed fully with Alhazen. Although developments during the seven hundred years separating these two intellectuals forced Kant to take a very different view on the relation between ourselves and the objects we perceive, he still thought that perception involves an unconscious inference and that it requires the use of

imagination. Kant was also able to make understandable the unnoticed action of the mind required for perception. However, he was forced to accept that we really do not know what the properties of things outside the mind are, and so he left the understanding and reason to the playground where the mind itself makes their objects out of the impressions of the senses.

This retreat to a mere empirical realism was an answer to a problem that a theory like that of Alhazen must face: How can we be sure that we represent correctly the form of objects outside the mind? Kant's answer is that we cannot, but neither is there any particular need for this, as the objects of our representations are nevertheless empirically real. In what follows, we should restrict our attention to the phenomenal world and, more importantly, to the *mind* that represents this world.

Now, as Kant took the view that the mind itself must produce the form of the objects it perceives, we may ask whether he also thought, as Alhazen did, that it is the faculty of judgement that produces the objects of perception. If he did, we could assume that his task of proving the objective validity of the categories is thereby made easier, for then the operations of the understanding in making judgements and inferences – and reasoning in general – would be reducible to the same acts that the perception of objects requires. It has indeed been the dominant view of Kant scholars that the categories are already involved in mere perception. However, there have also been those suggesting that we should not take Kant as claiming that all our cognition is conceptual.²¹ I shall try to show that by paying more attention to historical considerations than what has been customary in Kant literature, his Deductions can be made intelligible without assuming that our perception is conceptual, although, as we shall see, we

²¹ See, e.g., Hanna, “Kant and Nonconceptual Content”; Hanna, “Kantian Non-conceptualism”; Allais, “Non-Conceptual Content”.

need to be very careful with what we mean by the word 'perception'.

In order to understand the Deductions, we need to understand what perception is in Kant. On the other hand, the Deductions become the criterion for the correctness of one's interpretation of Kant's view on perception. Kant does not put much effort in explaining his account of perception, and textual evidence may support various interpretations. For this reason, one cannot be sure that her interpretation of Kant's account of perception is the correct one unless it reveals the secrets of the Deductions. In this respect, the conceptualist reading seems to have the advantage, for, as I already noted, a reduction of the operations of the understanding to those of perception is a convincing strategy for interpreting the Deductions. In Kant's case, this would mean that apperception is involved already in perception. However, there are reasons not to accept this approach. First, Kant says very clearly, that objects can appear to us without the functions of the understanding and that the categories "do not represent the conditions under which objects are given in intuition".²² Secondly, if apperception were already involved in perception, Kant's view would have been a revolutionary one, and nevertheless he does not give any indication of this supposed revolution. Finally, I think that if Kant really thought that apperception is involved in perception, this would ascribe an exceedingly strong consciousness to perceptual awareness. This point cannot be made fully clear until later, but by considering the kinship between Kant's theory on the one hand, and Alhazen's theory on the other, I may perhaps clarify it to a point. Alhazen thought that we perceive what a visible object is only by recognition (*per cognitionem*). In the 18th century, philosophers would have made a distinction within Alhazen's concept of recognition so that it would contain the concepts of mere reproduction and recognition. According to this distinction, the

²² A 89 / B 122.

latter would refer to the subject's consciousness of the sameness of a perceived representation with a reproduced representation. According to this early modern conception, recognition requires apperception whereas mere reproduction, which was thought to follow the laws of association, does not. Alhazen's *per cognitionem* obviously does not discriminate between these two kinds of reproduction but it does include both of them. Now, if mere reproduction requires being accustomed to perceiving objects, as Alhazen and Kant thought, and if this requires a more arduous action of apprehending spatial properties of objects in early childhood, then the latter can hardly be thought to involve apperception. However, if apperception were a condition of perception, it would indeed have to involve apperception, and self-consciousness would thus be directed at the raw data of the impressions rather than on our perceptual consciousness of objects.

I do not think that this is how Kant thought, but I do see how interpretations along these lines have become popular, for, as we shall see, Kant does think that the acts through which perceptual awareness becomes possible are sensed through inner sense, which in the Wolffian school was thought to be the same as apperception. Prior to the first *Critique*, Kant himself had used this term as a synonym for apperception. If he still did, apperception would indeed seem to be involved already in mere perceptual awareness.

But things had changed. Kant thought that significant philosophical progress had been made since the time of Christian Wolff (1679–1754),²³ and I will argue that he no longer thought that apperception and inner sense are the same at all. In fact, I think that the correct understanding of Kant's account of inner sense is the key to understanding both his account of perception and the Deductions of the categories. Understanding the nature of

²³ See B XXXVI.

sensibility thus becomes a focal point in the task of understanding the Deductions.

So let us take a preliminary glance at the faculty of inner sense. Kant was not in the habit of postulating things, but even he had to start somewhere, and his starting-point is that the mind is receptive. This receptivity can sense both outer and inner activity. Hence, we have inner as well as outer sense. This is the basis from which he builds his theory of cognition – a theory which, as is befitting for a philosopher of first class, will turn out to be very simple, although understanding it will require much work.

Now, when Kant wants to proceed from the basis that we have both inner and outer sense, this means that we are no longer interested in different modes of receiving sense data from outside the mind. Our sense organs belong to the physical realm, and Kant thinks that the physical is nothing but appearance. Thus, the *mind's* ability to sense is what must provide the starting-point for Kant's investigation. At the same time, this division between outer and inner sense enables us to generalize the basis of Alhazen's theory of vision: we receive impressions through outer sense, but these impressions cannot represent any object by themselves. Rather, the mind itself has to act on these impressions, and we can represent an object only through mental action.

In this picture, if consciousness of any kind presupposes inner sense, then it follows that we cannot be conscious of our impressions as such, just as Alhazen thought that we cannot be conscious of light as such and colour as such. For through the inner sense we sense only the mind's own activity, not what it has received through outer sense. This means that we have to make a distinction between impressions on the one hand and sensations on the other, of which only the latter are conscious representations. And Kant makes just the sort of distinction.

In chapter 1 we shall see that this is Kant's starting-point, namely that the mind is both active and passive and that there is a distinction between outer and inner sense. Through outer sense

the mind receives impressions, through the inner sense it becomes conscious of its own activity and, through this activity, of the representations it has received through outer sense ordered in the *a priori* form of space. For us the soundness of this position seems far from evident, but Kant considered it to be evident enough, so that he thought he could proceed from it without feeling the need to provide the reader with any justification for it. The basis his assumed reader was supposed to have for understanding Kant's whole work is thus very different from ours, and I should therefore provide *my* reader with an introduction that makes her or him prepared to accept the soundness of Kant's starting-point. For this end, I will here try to outline the relevant shifts of philosophical opinions that had an effect on Kant's view.

III

Alhazen's theory was well known to René Descartes (1596–1650), whose explanation of the physiology of vision is essentially the same as Alhazen's. But unlike Alhazen's theory, Descartes' philosophy had a sharp distinction between the body and the mind. In Descartes' theory, the motions in the nervous system produce sensations in the mind.²⁴ According to Descartes, in visual perception our sensations of light and colour are caused immediately by the force and manner of the movements in the brain that affect the soul, but the apprehension of shape and size requires psychological processes and involves judging.²⁵ In other words, just as Alhazen, also Descartes thought that the perception of the shape and size of objects requires judgement or inference. Descartes elaborates this further in *Objections and Replies* where he distinguishes among three grades of sense activity: “the imme-

²⁴ On the connection between Alhazen and Descartes, see Hatfield and Epstein, “Sensory Core”, 374–375.

²⁵ Descartes, *Optics*, AT 6, 130 and 140–141; CSM I, 167 and 172.

mediate stimulation of the bodily organs by external objects”, “the immediate effects produced in the mind as a result of its being united with a bodily organ” and “the judgements about things outside us which we have been accustomed to make from our earliest years – judgements which are occasioned by the movements of these bodily organs.”²⁶ The second and third grades both belong to mental events, but the second grade typically goes unnoticed, because the judgement or inference we make about the object occurs “at great speed because of habit, or rather we remember the judgements we have long made about similar objects; and so we do not distinguish these operations from simple sense-perception.”²⁷ Because of this, the third grade, although it depends solely on the intellect, is commonly assigned to the senses, whereas in truth nothing more than the perception of the light and colour should be referred to the sensory faculty.²⁸ Thus, what Alhazen called judgement by recognition, is an integral element in Descartes’ theory as well.

Although Descartes thought that body and mind interact, he thought that the mind is a separate substance and its principal attribute is thought, of which we possess two modes: the perception of the intellect and the operation of the will.²⁹ The perception of the intellect includes sensory perception as well as imagination and pure understanding.³⁰ By making a clear distinction between body and mind, Descartes is of course an important link between Alhazen and Kant, but according to Descartes, what is distinctive of thought is that thought is always conscious, and by making conscious thought a defining characteristic of the mind, Descartes perhaps left a more limited heritage for Kant than we might ex-

²⁶ Descartes, *Objections and Replies*, AT 7, 436–437; CSM II, 294–295.

²⁷ Descartes, *Objections and Replies*, AT 6, 438; CSM II, 295.

²⁸ Descartes, *Objections and Replies*, AT 6, 437; CSM II, 295.

²⁹ Descartes, *Principles of Philosophy*, AT 8A:25; CSM I, 210f.

³⁰ Descartes, *Principles of Philosophy*, AT 8A:17. CSM I, 204.

pect from the impact he had in the history of philosophy on the whole.³¹

It is easy to see that if our perception of objects involves an unnoticed act of thought and if thought is always conscious, this poses a problem. Indeed, Gottfried Wilhelm Leibniz (1646–1716) remarks that the Cartesian view that thought is always conscious does not reflect what the mind or soul, or a monad, essentially is.³² According to Leibniz, a monad’s “passing state which involves and represents a multitude in the unity or in the simple substance, is nothing other than what one calls *perception*, which should be distinguished from apperception, or consciousness”.³³ He thought that changes in these states of a monad originate from an internal principle, and he called the principles of change *appetitions*. Appetitions are monad’s tendencies to go from one perception to another, i.e. the action of the internal principle of the monad.³⁴ Thus, for Leibniz, perception constitutes the essence of the mind, and change can only take place through inner action.

At this point it may be useful to consider Kant’s own philosophical development. The *New Elucidation*, which appeared in 1755, is a distinctively Leibnizian work, but even at the start of his career Kant did not want to accept Leibniz’s theory of pre-established harmony, according to which there is no real interaction between substances. According to the young Kant, a change in the state of a substance requires a connection with other substances.³⁵ He argues that motion in a world is what makes

³¹ Notwithstanding this remark, I admit that interesting comparisons can be made between Descartes and Kant’s transcendental deduction of the categories. Through Descartes we can better understand *what* the categories are. See Koistinen, “Descartes in Kant’s Transcendental Deduction”.

³² Leibniz, *Principles of Nature and Grace*, §4; *Monadology*, §14.

³³ Leibniz, *Monadology*, §14.

³⁴ Leibniz, *Monadology*, §11 and 15; *Principles of Nature and Grace*, §2.

³⁵ Ak. 1:397.

change possible. In substance itself there is nothing that can make the substance change its state, but the external motion can trigger a change by giving rise to a new determining ground. This ground will have to be in the essence of the substance itself, but it cannot arise without a connection with other substances.³⁶ Kant was thus struggling to make room for outer affection in a Leibnizian framework. One might say that as a rationalist, Kant thought that a change in the mind's representative state cannot be determined through inner action but necessarily involves both inner and outer action.

As Kant grew out of rationalism, he began to take more seriously the role of outer action in the determination of the state of the mind. Outer action does after all, he thought, affect the mind to the extent that this affection alone produces a manifold of representations. However, the role of inner action in Kant's mature view is by no means rendered insignificant, for he thought that outer sense cannot by itself produce perceptions, if by perception one means a manifold of representations *in one representation*. In other words, it cannot afford us composites.

Kant's definition of perception in his *Stufenleiter* is reminiscent of Leibniz's view in that it gives *Perzeption* a notably broad scope: sensations as well as cognitions are called *Perzeptionen*.³⁷ On the other hand it equates *Perzeptionen* with conscious representations, and in this respect his view is different from that of Leibniz. But this is not surprising as Kant has departed from the view that outer action does not provide the mind with a manifold of impressions. Now, as Leibniz thought that perceptions are a manifold, or a multitude, in the simple, Kant must provide an answer to the question of how the mind can get a manifold in one representation from a mere manifold. His view is that what differentiates manifoldness in one representation from the

³⁶ Ak. 1:410.

³⁷ A 320 / B 376.

mere manifold, is consciousness. Thus, conscious representations are called *Perzeptionen*.

We may now return to the problem of visual perception. We already saw with Alhazen that one is led to conclude that conscious visual perception requires an act through which the form of objects is apprehended and that the first products of the affection through outer sense are not conscious. Now, if we bring Alhazen's problem of visual perception to the mental realm, as George Berkeley (1685–1753) did, and conclude that our vision can detect only light and colour, then the gravity of the problem increases. For then we can no longer make the act of apprehension rely on the two-dimensional form received from the sense organ. It will have to be concluded that neither the idea of space nor figures – not even flat or plane figures – can be received through the sense of sight. And according to Berkeley, they cannot be received through outer sense at all.³⁸

Kant thought that Berkeley's dogmatic idealism is "unavoidable if one regards space as a property that is to pertain to things in themselves."³⁹ The Transcendental Aesthetic removes this threat by asserting the transcendental ideality of space, but still the problem remains: how do we perceive the space in objects? If, in the case of vision, outer sense provides the mind only with light as such and colour as such, how do we perceive coloured parts of spaces? It would be too hasty to conclude that Kant could give a satisfying answer to this question solely by the claim that space is the form of outer sense. This answer alone would not explain how we perceive lighted and coloured parts of space, for light as such and colour as such cannot bring with them representations of shapes. However, it does open a new path to answering the problem by providing a form on the basis of which the form of objects can be apprehended. Whereas Alhazen thought that the

³⁸ Berkeley, *A New Theory of Vision*, section 158.

³⁹ B 274.

form of objects is apprehended on the basis of the two-dimensional form provided by the eye, Kant thinks that it is apprehended on the basis of the three-dimensional space of our outer sense. It is interesting that although also according to Leibniz's account space is ideal, Kant thought that Leibniz's view that physical bodies are prior to space is a mistake worse than the mistake of holding space to be real and prior to physical bodies. Space must thus be both ideal *and* prior to appearances.

IV

Berkeley's conclusion that through our outer sense we cannot receive even ideas of flat or plane figures is a devastating one, and it led him to deny the existence of the material world. Thomas Reid (1710–1796) thought that Berkeley and David Hume (1711–1776) had brought philosophy into danger. This is how Reid describes the situation:

The second [Hume] proceeds upon the same principles, but carries them to their full length; and as the Bishop undid the whole material world, this author upon the same grounds, undoes the world of spirits, and leaves nothing in nature but ideas and impressions, without any subjects on which they may be impressed.⁴⁰

According to Reid's analysis, the ideal system is to blame for this absurdity, and he abandons the theory of ideas altogether.

Reid attacks the view that we perceive things only by means of mediating ideas, which are images of objects. He contends that the skeptic should not stop at the conclusions Berkeley and Hume had drawn but advance even further:

⁴⁰ Reid, *Inquiry*, 20.

I affirm that the belief of the existence of impressions and ideas, is as little supported by reason, as that of the existence of minds and bodies.⁴¹

The belief in impressions and ideas is thus a mere hypothesis, and according to Reid, a hypothesis that should be abandoned.⁴²

Reid's alternative solution is a theory of immediate perception. According to Reid, we perceive the objects themselves rather than ideas that refer to those objects. This account of perception is founded on a new conception of sensation, where sensation is considered to be an act of the mind. Smelling, for instance, is "an act of the mind, but is never imagined to be a quality of the mind."⁴³ Our sensations and perceptions are, according to Reid, necessarily conscious, and when our perception ceases, nothing remains of the sensation.⁴⁴ As Manfred Kühn notes, Reid's account of sensation can be understood only through his theory of perception, because sensations in isolation would be nothing to us.⁴⁵ Let us take a brief look at this theory.

Reid thinks that our sensations are accompanied by certain beliefs: in actual perception of an object it is accompanied by a belief of the presence of the object whereas in remembering an object the sensation is accompanied by a belief of its past existence. In the mere imagination of an object the sensation is not accompanied by a belief at all and the imagination is a simple apprehension.⁴⁶ In remembering a past sensation the sensation, rather than any idea of it, is the immediate object of the imagination. In smelling, for instance, the sensation compels the belief of

⁴¹ Reid, *Inquiry*, 71.

⁴² Reid, *Inquiry*, 28.

⁴³ Reid, *Inquiry*, 42.

⁴⁴ Reid, *Inquiry*, 27; 175–6.

⁴⁵ Kühn, *Scottish Common Sense in Germany*, 24.

⁴⁶ Reid, *Inquiry*, 27f.

the present existence of the smell, and its memory the belief of its past existence.⁴⁷

What Reid wants to do is to reverse the prevailing conception that the simple apprehension is prior to belief, judgement or knowledge:

So that here, instead of saying, that the belief or knowledge is got by putting together and comparing the simple apprehensions, we ought to say, that the simple apprehension is performed by resolving and analysing a natural and original judgment. And it is with the operations of the mind, in this case, as with natural bodies, which are indeed compounded of simple principles or elements. Nature does not exhibit these elements separate, to be compounded by us; she exhibits them mixed and compounded in concrete bodies, and it is only by art and chymical analysis that they can be separated.⁴⁸

In this conception, “our sensations are not images of matter, or of any of its qualities”.⁴⁹ They are not resemblances of any of the qualities of bodies, and they have no object distinct from the act itself. Nevertheless, perception “hath always an object distinct from the act by which it is perceived”.⁵⁰ Our perceptual consciousness thus begins with complex perception, and it is only through reflection that we can separate our subjective sensations from the objective perceptions. Extension and shape among other requisites of our perception of bodies do not originate from our sensations. Sensations only suggest those qualities.⁵¹ Thus in the case of hardness, our sensation does not resemble the hardness of

⁴⁷ Reid, *Inquiry*, 28f.

⁴⁸ Reid, *Inquiry*, 29f.

⁴⁹ Reid, *Inquiry*, 92.

⁵⁰ Reid, *Inquiry*, 168.

⁵¹ See, e.g., Reid, *Inquiry*, 56.

an object, it is only the medium that suggests the latter. The sensation itself is, Reid claims, “a species of pain”.⁵²

One may compare this with Alhazen’s view that in visual perception the effect of the light in the eye is of the nature of pain. Remember that in Alhazen the perception of an object of vision depends on an act through which the *ultimum sentiens* apprehends the form of the object by using pure sensation, which is of the nature of pain, and the form that the subject’s eye provides. I noted above that there is a certain similarity between this and Kant’s view, the difference being, of course, that in Kant the form needed for apprehension is the three-dimensional form of outer sense. Now, since it had become obvious to Kant, that the early modern approach to the problem of perception through ideas was less than successful, we need to see if Reid’s positive account, according to which our sensations, as *mental* acts, are not objective representations but rather presuppose perception, or consciousness, of objects, could in any way have helped Kant in forming his theory of perception.

Manfred Kühn has argued that Reid’s philosophy had a substantial effect on German philosophy and that Kant himself could not have avoided knowing the Scots in great detail.⁵³ I believe that Kühn is right in claiming that Kant was influenced by Reid, although this influence, as Kühn seems to be ready to admit, was largely mediated through Johann Tetens (1736–1807). As Kühn notes, Tetens took Reid’s criticism very seriously and tried to improve the theory of ideas on the basis of this criticism. He agreed with Reid that the mind is both passive and active in perception, and he also agreed that sensations do not resemble the sensed objects. But Tetens’ investigations penetrated deeper into the mind than Reid’s, and his aim was to uncover what lies behind the act of perception. According to Reid, there is much that

⁵² Reid, *Inquiry*, 64.

⁵³ See his *Scottish Common Sense in Germany*.

remains hidden to us in the act of perception, but Tetens thinks that by observing the mind we can still reveal a great deal about it. In other words, Tetens aimed to reveal what lies behind consciousness.

Tetens' philosophy is built upon a new conception of inner sense. I aim to show that this conception allowed Kant to answer the question that he had failed to pay attention to in the *Dissertation*: what is the ground of the relation between our representations and their objects? Kant's answer to this question is based on Tetens' revision of the theory of ideas (which was yet to be developed at the time of the *Dissertation*). The new conception of inner sense explains how our conscious representations in perception (or, as the terminology was not fixed, in Tetens, our sensations and ideas) can be modifications of the mind, which Reid had denied. It also explains how our perception of objects can still be immediate and how our conscious representations can contain a manifold in one representation. Whereas Reid accepted only material impressions, i.e. bodily impressions, Tetens claims that the existence of mental impressions is not a hypothesis but a fact that can be verified by observing the mind. Our consciousness of objects requires that these impressions are acted upon, and this action is sensed through our inner sense.

Although Tetens proceeds from an empirical standpoint, as a German philosopher his revision of the theory of ideas can be best understood as a revision of Wolff's philosophy. Like Reid, Wolff accepted only bodily impressions but Reid's criticism is just as much targeted against Wolff as it is against the empiricists.

According to Wolff, a representation of an object involves two mental acts: the act of perception, through which the representation arises, and the act of apperception, through which the mind becomes conscious of the representation, and consequently of the object. The mediating representation is called an

idea, insofar as it is considered in a relation to the object.⁵⁴ The cognition of an object is thus mediated through an idea. Tetens is sympathetic to the view Kant had proposed in the *Dissertation*, according to which space and time are intuitions, and like Kant, he also criticises the Wolffian view that apperception arises from the clarity of partial representations.⁵⁵ According to Tetens, the representation of an object is not yet an idea of it, and the representation itself can be clear without consciousness of it. An idea, according to Tetens, is a conscious representation, and he equates it with what Reid calls a perception.⁵⁶ Kant, on the other hand, will go even further and drop all talk of ideas in perception. For him ideas are concepts which go beyond the possibility of experience, and neither our cognition of the objects of perception nor of experience involves ideas.⁵⁷ Notwithstanding, both involve modifications of the mind (which belong to inner sense) and mental acts on these modifications, these mental acts being represented through inner sense.

Tetens developed an original view on sensibility, which differs from all earlier accounts. In my opinion, it is this theory on which Kant builds a generalized and modern version of Alhazen's theory of perception, according to which objects of perception are apprehended by a faculty (or, rather, faculties) of the mind by using mental impressions and the form of our sensibility. When we understand this theory, we are in a position to understand how Kant thinks he can prove that our pure concepts are objectively valid for all possible perception.

⁵⁴ Wolff, *Psychologia empirica*, § 48.

⁵⁵ Tetens, *Versuche*, 95–104.

⁵⁶ Tetens, *Versuche*, 95f; 342.

⁵⁷ A 320 / B 377.

V

One sometimes gets the impression that commentators think that it is advisable not to look too closely on what Kant says, either because he does not always mean what he says or because he tends to get confused from time to time.⁵⁸ I shall not take this advice. On the contrary, I think we should look very closely on what Kant says, and I think that the *Critique* is a coherent and well written book. When one gets confused while reading Kant, I think it is fair to assume that the more likely source of confusion is the reader's shortcomings than those of the writer. In any case, it has been my principle in studying Kant that when something seems incomprehensible, I should work harder to make it comprehensible. I think that this can be achieved through understanding the roots of Kant's philosophy. In my opinion, it is impossible to gain adequate understanding of Kant's philosophy without understanding Wolff's philosophy. It is imperative that we understand what needed to be changed in Wolff's philosophy, and in order to understand that, we need to have some kind of understanding of what that philosophy was. Kant of course assumed that his reader knew it by heart. Unfortunately, Wolff's philosophy is not a very popular subject today, and reading Kant may in fact be something like reading a foreign language without a vocabulary.

On the other hand, Kant was not the only one who thought that Wolff's philosophy needed to be revised. Tetens was one of those colleagues whom Kant respected as a philosopher, and Tetens had already made headway in revising Wolff's philosophy. Kant could thus build on that work and as he was making a contribution to a discussion that was already going on, he felt no need to explain every move as if he was writing to a student who had no knowledge of the subject. Kant's contemporaries did not

⁵⁸ I shall provide examples of this in the final chapter.

understand the book, so perhaps he relied on this too much. But if he did rely on it too much, where does this fact leave us? Perhaps we should consider ourselves as students with no knowledge of the subject.

This is why I have chosen to concentrate more on those philosophers who influenced Kant's thought than on commentaries on Kant. Colin McLear has recently suggested that both the conceptualist and the non-conceptualist readings of Kant's account of perceptual content have widely been built on the wrong assumption that states of perceptual awareness have intentional content.⁵⁹ I argue the same here, and because I think that commentators have erred in this fundamental assumption, my discussion on secondary literature will be limited in the main body of this study. I will refer to secondary literature only when I feel that doing so will help us understand what Kant means. In my opinion, discussing secondary literature merely for the sake of showing that there is such literature would be counterproductive, as I think it would distract the reader in a subject that is difficult enough as it is. That is why I postpone discussion on secondary literature until we have read through the *Deductions* and the *Schematism*. In the final chapter I will then show how I think that my interpretation solves problems other commentators have encountered.

In chapter 1, I will first present Tetens' criticism on Wolff's philosophy. Tetens thought that it is a mistake to think that sensations are objective representations, and in section 1.1 I explain how he proposed that the Wolffians should change the way they think about representations. As Reid had shown, in explaining the possibility of representing an object, one has to view the mind both as active and passive. The possibility of representing an object depends on the receptivity of the mind, but sensations alone cannot produce a representation of an object without

⁵⁹ McLear, "Kant on Perceptual Content".

mental activity. In section 1.2, I will present Tetens' account on sensibility, and we will see how he thought that in order to be active, the reproductive faculty (imagination) must be grounded on a productive faculty which produces sensible abstractions. On the basis of what I have here said about Alhazen's theory, it will be easier, I hope, for the reader to see that if we accept the fact that receptivity alone cannot provide us with representations of objects, that commits us to a certain logic of thinking about the mental activity required for cognition. We will later learn that understanding the possibility and the requirements of the empirical reproducibility of appearances is vital to understanding the Deductions, and Kant clearly took it for granted that his reader understands this issue. This is the key to understanding what Kant says about the synthesis of reproduction in imagination in the A Deduction, but unfortunately Kant does not explain the problem because it, as such, does not belong to transcendental philosophy. He clearly expects the reader to be familiar with the logic behind Alhazen's and Tetens' considerations. The reason why I have dealt so extensively with Alhazen's theory in this introduction is that understanding the problem of empirical reproducibility is a requirement for understanding the Deductions. In chapter 1 my aim is to address this issue in a preliminary manner through Kant's Schematism. I will first show that both Tetens and Kant thought that the reproducibility of appearances presupposes generality, although it does not presuppose concepts, and in section 1.3 I will show how we might be able to understand Kant's Schematism on the basis of Tetens' theory of sensible abstractions. I will also consider a view which one commentator has put forward regarding how Kant should have thought about empirical apprehension in the light of modern science. I claim that how he *should* have thought about empirical apprehension is how he actually *did* think about it, and that his theory of perception might be surprisingly modern.

Chapter 2 deals with the Transcendental Aesthetic, and in it we start going through Kant's text systematically. I will follow the A edition text of the Transcendental Aesthetic and the Analytic of Concepts leaving out of discussion only the parts that do not contribute anything substantial to the aim of understanding the Deductions. I will quote sentence by sentence those sections of Kant's text that I find most important. Quoting from here and there would allow one to cheat by leaving out the passages that do not fit the picture one would like to draw. It has been difficult for commentators to find an interpretation that does not contradict what Kant says even in these short parts of the *Critique*. My aim is to improve the situation and show that Kant's text is coherent.

Like Tetens in his *Versuche*, also Kant aims in the Transcendental Aesthetic to convince Wolffians of the need to change their conception of sensibility. This change requires terminological changes, and in his untitled introduction to the Transcendental Aesthetic Kant introduces the basic terminology in a manner that should be acceptable to his reader. My aim in section 2.1 is to explain the background against which we should read this introduction, and explain why he uses terms like 'intuition' and 'appearance'. In section 2.2 I will present very briefly what Kant thinks time and space are. I will not go into details of the Transcendental Aesthetic, because the deduction of the concepts of time and space is not my concern here. What I will do is to show the importance of Kant's view that time is the form of inner sense. As it is the new conception of inner sense that is decisive in understanding not only what space and time are, and how they are represented, but in understanding the Deductions as well, we must put emphasis in understanding this conception. In section 2.3 I explain how Kant's account of inner sense differs from the Wolffian conception.

In the Transcendental Aesthetic Kant proves the objective validity of the pure *a priori* concepts of space and time. We have two kinds of pure *a priori* concepts: space and time as concepts of

our sensibility, and the categories as concepts of the understanding. The conclusion of this proof is thus in itself important, because it says that the concepts of space and time necessarily apply to everything that can come before our senses. However, Kant also needs this conclusion in the B Deduction, and in order to understand how it helps to prove the objective validity of the categories, we need to understand Kant's conception of inner sense. In section 2.4 my aim is to explain why Kant had to change his view on inner sense from the view he had held in the *Inaugural Dissertation*. Kant realized that there has to be a link between the sensible and the intellectual. In the end, this comes down to the fact that mere receptivity cannot produce a representation of an object. In fact, the mind must be active in producing not only the representation of an object but the object as well. Elucidating this active role of the mind in cognition is a major theme in this study. In this section, I will provide reasons for thinking that Kant saw Tetens' conception of inner sense as a solution to the problem of the ground of the relation between representation and object.

Although I have here stressed the importance of the correct understanding of Kant's view on perceptual awareness, we cannot make sense of this view on the basis of the Transcendental Aesthetic alone. I expect that in the course of reading this monograph the reader will, at times, want to object to how I interpret Kant's text thinking that my evidence is merely circumstantial. I ask the reader to be patient, and to withhold her or his judgment. One may take my claim that we should interpret Kant through Tetens' account of inner sense as a mere hypothesis. At the end of this monograph the reader may then judge whether the hypothesis should be accepted or not. My claim is that on this hypothesis both the Deductions and the Schematism become intelligible, and that it can be sufficiently confirmed. It is, however, the Schematism that will give us the last piece of information needed for understanding how Kant thought of sensibility, and I postpone discussion on some key issues until the final chapter.

Chapter 3 discusses the Metaphysical Deduction of the categories, in which Kant aims to show that the necessary unity of judgements is also the unity which the categories give to the synthesis of imagination. In section 3.1, I will present a detailed discussion on the beginning of Kant's introduction to transcendental logic. In this introduction, we will not only learn what transcendental logic is but also gain important information of the elements of cognition. Most importantly, we will learn that an appearance is a pure intuition. In section 3.2, we will see what the logical use of the understanding in judging is and how judgements are related to concepts. In 3.3, I will then present an interpretation of the Metaphysical Deduction. The purpose of the Metaphysical Deduction is to show that the synthesis of the understanding at different levels has the same source of unity: the categories. In my interpretation of this proof, I stress the importance of realizing that the understanding is not involved in producing mere perceptual awareness at all. Thus, we learn that an appearance, being a pure intuition, requires a pure manifold and a pure synthesis, but it does not require the use of categories.

In chapter 4 we will turn our attention to what a transcendental deduction of the categories is and consider some historical aspects related to Kant's Transcendental Deductions. In section 4.1, we will see why a transcendental deduction is necessary, and how it differs from an empirical deduction. A transcendental deduction is necessary because the appearances are independent from thought, and the Metaphysical Deduction tells us only that we use the categories when we think about the appearances, not that we are justified in doing so. In order to get a better understanding of the problem, I will, in section 4.2, explain how Tetens thought that the functions of the understanding are reducible to the act of perception. A reduction of this sort would provide the key to proving the objective validity of the categories, and in section 4.3 I will suggest that Tetens' analysis of the cognitive faculties can help us to understand the overall setting of the Transcendental

dental Deductions. However, there is a fundamental disagreement with Kant and Tetens on how sensibility and understanding are related to each other. In contrast to Tetens' view, Kant thinks that the ground of unity in thinking differs from the ground of unity in perceptual awareness, and this makes things more complicated for Kant. According to Kant, apperception provides the ground of unity in thinking. In the subsection before the Subjective Deduction, as it appears in the A edition, Kant explains that apperception, together with sense and imagination, is an original cognitive capacity, and in section 4.4 I will discuss this subsection. The original capacity of apperception has not been analysed at all up to this point, but now Kant reveals that it is apperception, as an original capacity, that is behind the third requirement for cognition of an object. The unity required for thought thus springs from an independent faculty, and Kant disagrees with Tetens and Wolff on this crucial point. In section 4.5, I will consider a criticism of Wolff's account of apperception presented before Kant, which may help to understand how Kant's theory criticises Wolff's theory.

In chapters 5–7, I will discuss the Deductions: first the Subjective and the Objective Deduction in the A edition, and then the one in the B edition. In these three Deductions Kant analyses the transcendental act required for cognition, the original faculties of cognition and its synthetic unity. I agree with Corey W. Dyck, who has argued that the Subjective Deduction is a contribution to the debate on the fundamental force of the soul. Kant's adherence to Tetens' claim that we must assume several fundamental cognitive forces can be seen not only from the Subjective Deduction but from the Objective Deduction in the A edition as well. The B Deduction, on the other hand, aims to establish the connection between sensibility and understanding in Wolffian terms. The Deductions thus approach the objective validity of the categories from different perspectives. However, they are perfectly compatible with each other, and because of their different approach, we

can benefit from comparing them. In fact, I think that only after reading all the Deductions we are in a position to understand them. In my opinion, the Deduction in the B edition is the better written than the A Deduction, and the B Deduction also incorporates well with the beginning of the *Critique* where Kant's aim is, as I read it, to show a Wolffian reader how the Leibnizian-Wolffian conception on sensibility must be changed. On the other hand, Kant did not rewrite the Schematism, which appears after the Deduction chapter, so it is written to follow the A Deduction. The Schematism explains how images are possible, but since Kant does not even mention images in the B Deduction, it would be very difficult, or even impossible, for a present-day reader to understand the Schematism without reading the A Deduction. I will briefly discuss the Schematism in chapter 8.

I will begin with the Subjective Deduction in Chapter 5. In section 5.1, I explain how the Subjective Deduction is related to the Metaphysical Deduction. We learn that the understanding is not an original faculty, and that there are only three original capacities: sense, imagination and apperception. These capacities all have both an empirical and a transcendental use, and in the Subjective Deduction Kant analyses the three empirical uses as three different syntheses. In subsections 5.2 through 5.4, I explain how Kant thinks that the cognition of objects is grounded on the transcendental uses of sense, imagination and apperception. We will see that mere apprehension of appearances requires transcendental reproduction of imagination and that cognizing them through concepts requires transcendental apperception, because only transcendental apperception can provide the necessary unity required for cognizing an object in thought. I shall argue that while the transcendental unity of apperception gives unity to all subordination of representations, it does not give unity to coordination of representations. Coordinative synthesis gets its unity from the transcendental use of sense. Thus, although appearances stand under the categories, the categories are not involved in represent-

ing them. I elaborate the distinction between subordination and coordination in section 5.5, and in section 5.6 I explain how the conclusion of the Subjective Deduction can be interpreted in two different ways. I suggest that the Subjective Deduction may not reach the level of proof Kant is ultimately after in the Objective Deduction.

The Objective Deduction will be analysed in chapter 6. First, I explain how the approach to the objective validity of the categories differs in this Deduction from that in the Subjective Deduction. The Objective Deduction is an inquiry into the relation of our cognition to its object from the side of the object, but as the object itself is a modification of the mind, the inquiry still concerns something in the subject, although it is not subjective. The Objective Deduction is an analysis of empirical apperception, which has form and matter. The Deduction is divided in two parts. Kant first proceeds from the form of empirical consciousness and then from its matter. In section 6.2, I examine the former, i.e. the top-down part, where Kant explains what the faculty of understanding is. Also the B Deduction contains a top-down part, and it is essentially the same in the A Deduction, so I will examine them together as far as it is possible. Kant argues that pure apperception grounds empirical apperception, and his analysis shows that pure apperception can yield empirical cognition only through the synthesis of pure imagination. The unity of apperception in relation to the transcendental synthesis of imagination is the pure understanding, and the understanding has a necessary relation to appearances by means of the categories.

The bottom-up part is different in the two Deductions. In the bottom-up part of the A Deduction Kant considers how empirical apperception gets its matter, and this I examine in section 6.3. We shall find out that the impressions of the senses can turn into experience only by means of pure imagination. Kant can then conclude that all possible appearances, although they do not de-

pend on the functions of the understanding, stand under the categories.

In the B Deduction Kant does not have to discuss how the matter of empirical cognition is put together, because his argument rests on formal considerations. However, in order to show that the two editions are compatible, I will in chapter 7 first compare the top-down part with what Kant has said in the Subjective Deduction. We shall see that in both editions, Kant explains how the understanding can be seen either as a faculty of thought or as a faculty of cognition. As a faculty of thought, the understanding is a faculty of performing an intellectual synthesis by means of which we can think an object. However, cognition requires a determination of sensibility through the understanding as a faculty of cognition. This determination requires a sensible synthesis, and the B Deduction shows that the unity in coordination is the same unity that is required for subordination, but applied to sensible intuition. Hence, everything that can be represented in space and time, stands under the categories.

My aim in chapter 7 is to present the argument of the B Deduction in a preliminary manner, and I will return to the B Deduction in chapter 9 after a short chapter on the Schematism, where my aim is to spell out the difference between images and perception. This difference and Kant's solution to the problem of heterogeneity between the categories and appearances becomes intelligible when we understand how Kant thinks that the act of the understanding in producing perception is directed at the schema of imagination, which produces the corresponding image. The Schematism allows us to have a deeper understanding of the bottom-up part in both the A Deduction and the B Deduction, and understanding the distinction between images and perception will help us to get a fuller grasp of the B Deduction in chapter 9.

In chapter 9 my aim is to discuss the interpretation of the Deductions to which my hypothesis about the origin of Kant's conception of inner sense leads. I will both elaborate on what that

interpretation is, and assess its plausibility by discussing the B Deduction in more detail. My purpose is to show, based on the discussion on the Schematism, how Kant thought that he could prove that all possible appearances, i.e. not only *our* conscious appearances, but appearances themselves, i.e. everything that can come before our senses, stand under the categories. The problem of objective validity can be formulated in various ways, but I focus on this formulation presented in § 26 of the B Deduction.

In assessing the credibility of my interpretation, it is useful to compare it with other interpretations. In chapter 9, I discuss the interpretations of Béatrice Longuenesse, Henry E. Allison and Dieter Henrich arguing that by adopting my interpretation of what Kant means by inner sense, we can solve the problems these interpretations create. In section 9.1 I will discuss the structure of the Deduction as a single proof in two steps. I will defend the view that Kant proves the objective reality of the categories in § 24, and the objective validity in § 26. In the Deduction, Kant first proves the objective reality of the categories by analysing the two components of the act of the understanding in cognition: the intellectual synthesis and the figurative synthesis. This forms the top-down part of the Deduction, and in it Kant shows that the understanding can determine sensibility. By means of the bottom-up part he then proves the objective validity of the categories by showing that the representations of sensibility are necessarily determinable by means of the understanding. I argue that my interpretation of the role of inner sense in Kant's theory of cognition draws a coherent picture of the Deduction. Where the other interpreters see Kant as falling into error, I see the interpreters as misconceiving Kant's view on inner sense.

Kant's argument for objective reality will be discussed in section 9.2, and his argument for objective validity in section 9.3. However, before addressing Kant's argument for the objective validity of the categories, I want to explain the fundamental problem Kant is trying to solve. In my view, Kant's philosophy is,

essentially, a rethinking of Wolff's philosophy. His purpose is first to correct the Leibnizian-Wolffian account of sensibility in the Transcendental Aesthetic, and then to show how this changes the way one should think about cognition.

In the end, the Deduction turns on the question of the possibility of representing composites – a question also Wolff was keen to answer. In section 9.3.1 I will explain how the Transcendental Aesthetic changes the way Kant tackles that question. Kant no longer thinks that sensibility is a confused mode of representing simple things, and he must find a fresh view on what images, i.e. representations of composites, are. In order to clarify this further, I will compare Kant's view with that of Locke. I will explain how I think Kant opposes Locke's view that sensibility offers us ideas of objects. In section 9.3.3, then, we will see how Kant's view on what images are enables him to rethink the difference between mere images and empirical apperception. These considerations pave the way for discussing the crucial step in Kant's argument. I argue that once Wolff's erroneous view on sensibility has been corrected, a Wolffian reader should accept Kant's reasoning. Hence, Kant's argument does not rely on Tents' empirical considerations. In fact, chapters 1–8, and even sections 9.1 and 9.2 could be seen as a rather extensive introduction to my interpretation of the Deductions. According to that interpretation, the new conception of inner sense enabled Kant to make the necessary revisions to Wolff's philosophy so that he could prove the objective validity of the basic *a priori* concepts.

1. AESTHETICS EMPIRICALLY CONSIDERED

1.1. *The Debate on the Concept of Representation*

Tetens' *Versuche über die menschliche Natur und ihre Entwicklung* was published in 1777, so it was written during the Kant's so-called silent decade. The book opens with a criticism of Wolff's and Leibniz's conception of representations. In order to understand this debate, we should first take a look at Wolff's empirical psychology. In his *Psychologia empirica* (§ 20) Wolff defines the soul as "the being that is in us conscious of itself and of other things outside itself".⁶⁰ The key terms through which Wolff outlines the soul's capacity to represent objects – cognizing, perception and apperception – are defined in three consecutive sections (§§ 23– 25). According to these definitions, cognizing is an act of the soul through which the soul is conscious of itself and of other objects outside itself. Perception is a mental act through which an object is represented to the soul, and apperception is consciousness of the soul's own perceptions. The soul's defining activity, being conscious both of itself and of other things, is thus called cognizing, and we cognize things through perceptions and through being conscious of our own perceptions.

Cognition of objects is thus for Wolff mental action. In empirical psychology, the soul's activity can be analysed into different faculties, which include sense, imagination, memory, attention and reflection. But as Wolff thought that the soul is a simple substance, he accordingly thought that fundamentally there is only one force, through which the soul acts, namely the force (or power) to represent: "We find in the soul nothing but one force to represent the world [...] and this force is what per-

⁶⁰ "Ens istud, quod in nobis sibi sui et aliarum rerum extra nos conscium est, *Anima* dicitur."

sists in it and what makes it a thing subsisting for itself”.⁶¹ This position was based on Leibniz’s theory of simple substances, which Leibniz called monadology, according to which there is nothing else in the monads but perceptions, i.e. representations of composites in the simple, and appetites, i.e. internal principles of change.⁶² According to Wolff, apperception, which for him is an essential element of thought, or cognition, is not an independent act but rather depends on the consciousness of objects and on the mental act of distinguishing.⁶³ In other words, without the act of perception through which the soul represents an object, and the act of distinguishing, there could be no apperception. Metaphysically speaking, there is only one cognitive force, and this force to represent is, according to Wolff, the nature of the soul.⁶⁴ As a corollary to this metaphysical position, he thought that every representation represents something in the world. In other words, every modification of the soul is for Wolff an objective representation.⁶⁵

The view that every modification of the soul is an objective representation has the odd consequence, as Tetens points out, that all emotions, desires and passions are representations, just as the ideas of the sun, of a horse or of a man are. This was not something Tetens was willing to admit, and he urged for a more intelligible characterization of representations.⁶⁶ In Wolff every

⁶¹ “Wir treffen in der Seele weiter nichts als eine Kraft sich die Welt vorzustellen [...] und diese ist dasjenige, was in ihr fortdauert, und sie zu einem vor sich bestehenden Wesen machet.” Wolff, *Deutsche Metaphysik*, § 784. See also § 743–§ 745.

⁶² Leibniz, *Principles of Nature and Grace, Based on Reason*, 207.

⁶³ Wolff, *Deutsche Metaphysik*, § 730.

⁶⁴ Wolff, *Psychologia rationalis*, § 68; *Deutsche Metaphysik*, § 756.

⁶⁵ Although it is Wolff’s (and Leibniz’s) position that Tetens criticizes at the beginning of his *Versuche*, the view that all mental states are objective representations can also be found in British empiricism. See Rolf George’s “Kant’s Sensationism”, 232–233.

⁶⁶ Tetens, *Versuche*, 9–10.

perception mirrors the state of the whole world in its entirety, and in order to explain this he had to make a distinction between immediate and mediate perceptions. Tetens chose a different approach and wanted to narrow down the scope of the concept of representation. According to Tetens, a characteristic mark of those modifications of the soul, that are representations, is that they hold before us immediately other things and objects and that the latter can be cognized through these modifications, when we use them as images. Immediacy is for Tetens the first characteristic mark of representations, and the first preliminary characterization of representations in the *Versuche* is that a representation is a modification of our soul through which we can cognize other things *immediately*.⁶⁷

In trying to get to the bottom of what representations really are, Tetens makes use of an empirical method. Two things concerning his method require attention. He emphasizes that he wants to base everything on observations and that he wants to avoid making any hypotheses.⁶⁸ I take that the express statement of his plan to avoid hypotheses is, at least in part, an allusion to Reid's philosophy: Tetens wants to make it clear that Reid's attack on ideas and impressions as mere hypotheses is taken into account, and that he will not be subject to such criticism. Concerning Tetens' empirical approach it should be noted that his empiricism is directed at the observation of the mind. By making use of his own distinction between an inquiry into the objects through their representations and an inquiry into those representations themselves, his method can be described as an empirical observation of the mind's own representations, modifications and acts. In other words, his aim is to reveal the nature of representations by making empirical observations of what goes on in the mind. As I will try to show later, it would be a mistake to dismiss

⁶⁷ Tetens, *Versuche*, 11.

⁶⁸ Tetens, *Versuche*, XXIX; 28f.

Tetens' efforts as useless in understanding Kant's philosophy by labelling those efforts as merely empirical. While it is true that Kant emphasizes the importance of a transcendental method as opposed to an empirical one, it is at the same time important to understand that the distinction should not be taken to imply that there is a transcendental method that could do without empirical observations of the mind. The difference is perhaps more like the one between hockey skates and a stick in scoring a goal: without the stick you will never score, but without the skates you will never be in a position to use your stick. My suggestion is, if you allow this clumsy metaphor, that Tetens sharpened the skates for Kant.

Tetens thinks that we need to begin by making observations of what goes on in the mind, and through observations we know that the soul has a receptive nature and that it thus has impressions produced by outside causes, but on the other hand we also know that it is active and exercises its own powers. It can change its own state as well as be active in relation to corporeal things.⁶⁹ This provides the starting point for Tetens' analysis of human cognition. His aim is to lay down uncontroversial observational facts and to see what can be inferred from them without the aid of hypotheses. His purpose is not to say that receptivity and activity are necessarily representational, but rather that this is what we know based on observations: the soul is receptive on the one hand and active on the other hand. In this respect, his starting-point is the same as Kant's, although Kant's inquiry is transcendental and his is empirical.

According to Tetens, the changes in the soul, whether they are caused by external things or by the soul itself, leave certain permanent effects or imprints (*bleibende Wirkungen, Folgen oder Spuren*) on the soul, and these imprints have different relations between themselves, just as their causes do, so that there is

⁶⁹ Tetens, *Versuche*, 13.

an analogy between these imprints and their causes. Different changes leave different imprints on the soul.⁷⁰ Tetens proceeds to note that there must be such imprints even if they are not recollected or reproduced. Even if I do not think about the moon at a given moment, I do have an imprint produced by the impression of the moon that I can renew without intuiting the moon again. Now, it is these imprints – produced by our modifications and capable of being reproduced – that constitute our representations, and Tetens concludes that it is precisely this relation to other antecedent modifications that is essential to representations.⁷¹

This analysis reveals a feature of representations that may surprise the reader. For Tetens, representations do not refer to outside objects but to the soul's own modifications. All representations, including those arising from corporeal objects, represent previous states of the soul. As Tetens thinks that the impressions we receive through the senses are not representations at all, his view is a form of sensationism, a position that the sensations produced by outside objects are nonreferential. Kant too was a sensationist, so it is useful to take a still closer look at Tetens' findings on the nature of representations.

The first original representations are sensible representations (*Empfindungsvorstellungen*). "They are images or representations, as one gets them from the *sensation* of things, and they represent the things as they are sensed."⁷² When these representations are later reproduced without the sensation being present, they can still have the same characteristics that they had before and they can therefore still represent things as these things were sensed. Tetens calls the first sensible representations *after*sensations (*Nachempfindungen*). They originate during the sensations

⁷⁰ Tetens, *Versuche*, 13–14.

⁷¹ Tetens, *Versuche*, 15–17.

⁷² "Sie sind Bilder oder Vorstellungen, wie man sie aus der *Empfindung* der Sachen erlanget, und stellen die Sachen dar, wie sie empfunden werden." Tetens, *Versuche*, 23.

and they are preserved in the soul. This observation leads Tetens to draw a distinction between two uses of the word ‘sensation’: the aftersensations are in fact what the philosophers call sensations, and the sensations proper are not sensations according to the philosophical usage of the term.⁷³

Tetens provides us with an example. In visual perception, e.g. when we look at the moon, a mental impression originates in the soul and we feel it. We do not know how this mental process begins but it is important not to confuse the physiological process with the mental process. The physiological process is unimportant in this context and it is the mental impression that provides the starting-point for Tetens’ analysis of the cognitive capacities of the soul.⁷⁴ When we feel the impression, we have a sensation, in this case of the moon, but this is not yet the *representation* of the moon. The sensation stays in us for a while even when the light rays no longer enter the eyes, and when this occurs we have an aftersensation or a sensation as a representation. The moment when the mind reflects the moon is the moment when we have the aftersensation. A conscious sensation, i.e. a perception with consciousness, does not arise at the moment of the first impression but rather when we have the aftersensation.⁷⁵ The existence of mental impressions is thus not a mere hypothesis, but on the other hand, impressions are not representations, and we must make a distinction between sensing and representing.

So, sensations proper are not representations, and we are not conscious of sensations in this signification of the word. What we are conscious of is the aftersensation that is caused by the sensation, and this, the sensation *as a representation*, is what philosophers mean when they speak about sensations. Tetens’ thoughts bear a resemblance here to those of Kant, but before considering this in detail, it is first important to note the differ-

⁷³ Tetens, *Versuche*, 23.

⁷⁴ Tetens, *Versuche*, 32.

⁷⁵ Tetens, *Versuche*, 32–33.

ence in terminology between Kant and Tetens. For Kant representation in general is the genus that has under it the representation with consciousness, which Kant calls a *Perzeption*. A *Perzeption* that refers solely to the subject as a modification of its state is a sensation. An objective *Perzeption*, on the other hand, is a cognition, which in turn can be either an intuition or a concept.⁷⁶ We can see here that Kant adopts Wolff's use of the word 'representation' in the sense that for him mental states are representations – be it that they represent or not. But what is interesting in regard to Tetens' analysis summarized above is that Tetens and Kant share the same concern: we must not let every modification of the soul be seen as an *objective* representation. In reflection 695 Kant illustrates the problem that had also troubled Tetens:

Leibniz takes every sensation of certain objects for cognitions of them. But since beings, who are not the cause of the object through their representations, must first in a certain way be affected by the objects so that they can arrive at a cognition of the objects' presence, the sensation must certainly be the condition of outer representation but not the outer representation itself.⁷⁷

Now contrary to Tetens, Kant is not interested in the empirical niceties of the perceptual process. In the *Stufenleiter*, to which I referred above, he does not deal with unconscious representations at all, and the sensations proper are for Tetens unconscious. Accordingly, sensations are for Kant "what philosophers

⁷⁶ A 320 / B 376–7.

⁷⁷ "Leibnitz hält alle Empfindung gewisser obiecten vor Erkenntnisse derselben. Allein weil dieienigen Wesen, die durch ihre Vorstellung nicht die Ursache des Gegenstandes selbst syn, von demselben erstlich auf gewisse Weise afficirt warden, damit sie von dessen Gegenwart Erkenntnis bekommen, so muss die Empfindung zwar die Bedingung der äusseren Vorstellung, aber doch sie nicht selbst seyn." Reflection 695, Ak. 15: 308–309.

call sensations” and he says that they refer solely to the subject, just as Tetens thinks they do. What is at issue here is that we must internalize the reference of sensations, because otherwise the route to speculative philosophy will turn out to be a dead end, as the failure of the British Empiricism had shown. For Kant the crucial distinction here is that between cognition of an object and mere affection through sense:

The most important difference in everything that belongs to our representations is between that which is a cognition of an object and that which concerns solely the way the subject is affected through the presence of the object, and that belongs to the state of the subject.⁷⁸

Through this distinction an analysis of the act through which we arrive at a cognition of an object becomes all the more important. While sensations are modifications of the mind, they cannot arise without a mental act, and if mere affection cannot provide us with a representation of an object outside our representations, then it is essential for us to analyse the mental activity and the capacities involved in cognition. I will now try to explicate Tetens’ theory of mental activity in cognition.

1.2. Tetens on Sensing and Representing

Tetens approaches cognitive action through sensibility. He thought that in addition to those sensations that are produced by outside causes the soul has representations of its own inner

⁷⁸ “In allem, was zu unserer Vorstellung gehört, ist ~~etwas~~ der Hauptunterschied zwischen dem, was ein Erkenntnis des Gegenstandes ist, und demjenigen, was lediglich die Art betrifft, wie das subject durch die Gegenwart des Gegenstandes afficirt wird, und zum zustande des subjects gehoret.” Reflection 695, Ak. 15: 308.

changes, and he argues that we have sensations of these inner changes in the same manner in which we have sensations of the changes produced by outside causes. In other words, we have inner sense in a true meaning of the word.

Here is how the argument goes. Tetens points out that at the same moment that we are conscious of a thing, we cannot think that we are conscious of that thing, because we cannot be conscious of our being conscious of it. In other words, we cannot reflect our own reflecting on a thing at the same moment that we are reflecting on the thing in question. The reason for this is that our soul's faculty of thinking (*Denkkraft*) is occupied in the act of distinguishing.⁷⁹ As the faculty of thinking is already occupied, we cannot use it to reflect our own activity of reflecting. The same applies to judging and reasoning as well: the action excludes the possibility of simultaneous reflecting on the action. Tetens concludes that the soul's action must occur first and reflecting on it not until after the action.⁸⁰

This leads Tetens to think that every action of the faculty of thinking has an immediate effect on the representation of the object of the action. This effect can be sensed and the sensation of the action can have an aftersensation we can reflect upon. We have, accordingly, sensible representations of our own activity of thought in the same sense that we have sensible representations of corporeal objects.⁸¹

But if one holds the view that sensible representations always refer to the soul's own modifications and that we nevertheless have inner and outer sense as two different sources of

⁷⁹ With the claim that thinking is based on distinguishing Tetens is siding with Wolff, who thought that being conscious of an object is to distinguish it from other objects and that distinguishing depends on comparing and reflecting. See Wolff, *Deutsche Metaphysik*, § 729, § 733.

⁸⁰ Tetens, *Versuche*, 46–47.

⁸¹ Tetens, *Versuche*, 48–50. According to Tetens we have sensible representations of the actions of the will as well.

those representations, one will have to explain how it is that we differentiate between outer objects and ourselves. Tetens thinks that this difference has its ground in the way our thought is formed by our reflection. Because our sensible representations are related to previous modifications of the soul and because there is an analogy between the representations and those modifications, the former can give images or signs (*Bilder oder Zeichen*) of the latter. But they also refer us to other objects. And given that there are sensations of the inner sense as well as outer sense, there turns out to be a difference in how these representations refer. Representations of inner sense refer to our own inner changes and representations of outer sense to external causes of sensations. In the case of inner sense, the representation is taken to be either a representation of an intuition, which has preceded the representation, or a representation of the self, whereas in the case of outer sense the representation is taken to be a representation that represents an intuited object for us. The difference is in the kind of judgment we make of the representation.⁸²

The outline of Tetens' view on sensible representations is thus that sensible representations *always refer to the soul's own modifications* and that the difference between sensible representations of outer and inner sense is due to the difference in the action of the soul's faculty of thinking when it reflects on them. From this we can see that thinking and sensing are for Tetens closely intertwined. Whereas in Wolff's *Psychologia empirica* the soul's cognitive capacity is neatly divided into lower and higher capacities – the former containing sense, imagination, the power of feigning and memory, and the latter containing attention and reflection – things are more complicated for Tetens: the faculty of thinking is already active in the very first operations of perception. As we know, Kant rejected the Wolffian distinction between lower and higher faculty of cognition, so it is obvious that he

⁸² Tetens, *Versuche*, 76–77.

shared with Tetens at least the view that there is a need to reconsider the role of sensibility and understanding in cognition. Now we should see if closer inspection on Tetens' efforts could in fact help us to understand how Kant thought that we should reconsider the distinction. In order to do this, it might prove useful to take a brief look at Tetens' view on representational activity in isolation and for now withhold examining his view on the faculty of thinking. We will return to the latter after we have examined how Tetens' thoughts on sensibility changed the way Kant thought about sensibility.

Tetens thought that the soul's representational activity can be divided into three distinct activities. The first of these is the act through which we take up the original representations from the sensations and preserve the aftersensations in the soul. This is called perception. The second act is the act through which the sensible representations can be reproduced so that they can be perceived with consciousness. This is called imagination. The third act allows us to form new simple representations from the material provided by the sensible representations. Tetens calls this the faculty of feigning. These three capacities exhaust the soul's representational activity, but in addition to this, our cognitive action includes that through which we become conscious of our representations, i.e. thinking.⁸³

Tetens' thoughts on the action of imagination and on the faculty of feigning turn out to be interesting in regard to Kant. Imagination is for Tetens only a reproductive capacity – it is not a capacity through which we could combine representations. The law of association gives us only a rule according to which one idea *can* follow another. It does not determine a whole sequence of representations and it does not contain the law of the faculty of feigning, which plays a crucial role in Tetens' analysis of the soul's representational activity. The faculty of feigning enables us

⁸³ Tetens, *Versuche*, 104–107.

to form sensible abstractions, without which we could not, according to Tetens, have representations of empirical objects.

The ability to form sensible abstractions is the most important of the functions of the faculty of feigning. Tetens guides us to thinking about this ability by considering how a manifold can be represented in one representation. When we form a sensible representation, e.g. of a tree, we have to form representations of its parts – of the trunk, its branches and leaves. The parts themselves are objects that we have to grasp (*fassen*) through separate acts of our sensibility. We have to move our eyes in order to have visual impressions of separate branches or to move our hand to have tactile impressions of them. The impression of the tree has therefore something distinguishable in it.⁸⁴

But this is not the only manner in which a manifold can be in one representation. Tetens notes that there is also an intensive manifoldness in the representations of the individual parts of a sensible representation. A leaf, for example, is in motion and has a shape and colour. This leads him to an important discovery:

The same simple sensation in which we grasp the colour gives us also the impression of motion. These two sensations constitute one sensation, and the phantasma that arises from this, is simple.⁸⁵

The reader will, I presume, wonder how a representation containing colour and motion can be said to be a simple representation. Indeed, this needs to be explained.

Tetens argues that the imagination cannot be the source of our ability to perceive unities containing a manifold. In the

⁸⁴ Tetens, *Versuche*, 129.

⁸⁵ “Dieselbige einfache Empfindung, in der wir die Farbe fassen, giebt uns auch den Eindruck von der Bewegung. Diese beiden Empfindungen machen Eine Empfindung aus, und das Phantasma, das davon entsteht, ist ein einfaches.” Tetens, *Versuche*, 129–130.

case of our representation of a leaf we have a representation that contains motion and the colour green. Tetens reasons that at least one of these representations must have occurred previously in another sensation, because otherwise we would not be able to distinguish them in the combined representation of a leaf. What makes motion and the colour green distinguishable from each other is that motion has occurred in a sensation which did not contain the colour green and vice versa. According to Tetens we can observe that similar impressions, representations and images coalesce into one representation which consists in them and which becomes a representation that stands out from the rest of the perceptual data. This combination of similar representations is a necessary condition of what he calls general abstractions or distinguishable characteristics. There could not be *any* distinguishing without a combination of similar representations. Because experience teaches us that individual sensations, e.g. green colours of a given body, are never exactly alike, Tetens concludes that the faculty of feigning produces our general images, which consist of a manifold of impressions that, when viewed separately, are not exactly like the general image.⁸⁶

Tetens holds that the imagination uses these general representations in its operations. They serve as images through which new sensations will be interpreted in the perceptual process and they become sensible appearances (*Scheine*). The appearance of the figure can be transferred to another subject of a different colour and the appearance of the colour to another figure. For the imagination, every appearance is a complete thing and its operations depend on the kind of abstractions it has available. The appearance of a leaf can indeed be analysed into appearances of motion, figure or colour but none of the latter can exist in the imagination until appearances subsisting for themselves have been produced out of them; and this is done by the faculty of

⁸⁶ Tetens, *Versuche*, 130–132.

feigning.⁸⁷ In other words, the mere ability to associate representations could not produce cognition. As Kant would say, this ability would remain hidden in the interior of the mind, and for Tetens the necessary faculty supporting the faculty of imagination is the faculty of feigning.

Tetens' point can be illustrated by an example. An appearance of a green triangle is not the same as an appearance of a green square. But neither is the appearance of the colour green the same as the green in the appearances of the green triangle or the green square. Green squares and triangles can be represented without the appearance of the colour green as an appearance of a complete thing, but without the latter the imagination cannot reproduce the appearance of either the green triangle or the green square on the occasion of, say, a green circle. In order to be able to do this the faculty of feigning has to compare different green figures and produce the appearance of green colour, and only after this will the reproduction of the appearance of some green coloured figure be possible on the occasion of the colour green. So, although a green leaf in motion is a composite representation of figure, colour and motion, it does not follow that it cannot be simple *for us*. The idea is that a representation that is in itself composite, can be a simple representation for our consciousness, because it is grasped through one act of feeling and consciousness, in which no manifoldness is distinguished. In such a case, what is heterogeneous in the representation, is apperceptible only as something simple.⁸⁸

Apperceptibility requires, according to Tetens, distinguishability in an image. Tetens agrees here with Kant who had suggested in the *Dissertation* that the Leibnizian-Wolffian view of sensibility as a confused mode of representation is erroneous. Tetens argues that clarity in an idea presupposes clarity in the

⁸⁷ Tetens, *Versuche*, 132–134.

⁸⁸ Tetens, *Versuche*, 136–138.

image, of which the idea is made. To illustrate this, he considers the representation of sunlight. The representation is simple although the light contains a manifold of spectral colours. As the spectral colours are not distinguishable in the image, our apperception cannot bring more clarity to the idea of sunlight. Thus, clarity and distinctness in an image is a precondition of clarity and distinctness in an idea, and our representations are images of objects only insofar as they are clear and distinct. This view can perhaps be best understood in comparison with Wolff.

According to Wolff, a mental image is a sensible idea, i.e. an objectively considered compositional representation in simple.⁸⁹ Tetens' aim is to modify Wolff's view so as to be able to evade Reid's attack on mental impressions and ideas, and this is done by divorcing images from ideas. Although images represent objects, they become ideas only by reflection, which contains the thought: "There is an object."⁹⁰ According to this view, animals do have images of objects but they do not have ideas of them, as the latter requires apperception.⁹¹

Thus, the mere animal-like perception of objects without reflection or apperception, involves general images produced by the faculty of feigning. In the above example of the green leaf, this object is represented differently once the faculty of feigning has produced the general image of the colour green. The impression of green colour becomes united with the general image of this colour, and the impression appears differently from how it would appear without the possession of the general image.⁹² Mere reproduction, i.e. association of representations, requires these general images, and images can be clear and distinct, although they do not involve an act of apperception. This implies that the animal-like state (in which according to Leibniz we spend three

⁸⁹ Wolff, *Psychologia rationalis*, § 87.

⁹⁰ Tetens, *Versuche*, 79.

⁹¹ Tetens, *Versuche*, 79.

⁹² Tetens, *Versuche*, 132

quarters of the time) does not involve ideas. The cognitive state of an animal is not yet the state which Reid would call perception, so Tetens' theory is not susceptible to Reid's attack. Thus, Tetens has presented an original theory in which mental impressions do not represent objects and in which the mere representing of objects does not involve ideas.

Now, although Tetens' approach is empirical instead of transcendental, he does face the same question that Kant does: how does cognition arise from a mere manifold of impressions. Tetens' empirical answer is that the ability to distinguish one character (*Zug*) from another in a composite representation presupposes that similar representations have previously been united by the productive faculty (the faculty of feigning). Tetens is reluctant to call this activity comparing but admits that it can be so called.⁹³ If one wants to call it by this name, then the conclusion is that general images presuppose a comparing activity of the mind, and this comparing is where our cognition has its roots. This answer does, however, pose a new question of the origin of the first composite representations. It seems that Tetens' empirical method is incapable of penetrating the mind deep enough in order to provide an answer to this question, but I think his example of the green leaf in motion tells us that he was not unaware of the question. In this example, we have a manifold consisting of green colour, shape and motion. Tetens notes that in geometrical images the imagination has a supply of representations with which we can combine our general images.⁹⁴ It seems obvious that without the ability to represent shapes the process leading to cognition could not begin. Time would seem to be a source of new general images as well. However, it is important to observe that these required spatial and temporal representations cannot be general images of spaces or times. We will see later that Kant's

⁹³ Tetens, *Versuche*, 131.

⁹⁴ Tetens, *Versuche*, 133.

transcendental approach can further illuminate this problem and also provide an answer to it.

It is easy to see that Tetens' general images have a connection to Kant's Schematism. According to Tetens, general sensible representations provide the matter for our concepts.⁹⁵ Although Tetens' analysis is limited to empirical and pure sensible concepts and thus leaves out pure concepts of the understanding, which for Kant's Schematism are the most important ones, it nevertheless does illuminate what schemata are for Kant. Kant's position is that empirical or pure sensible concepts are always immediately related to a schema and not to an image. Despite the introduction of schemata, there is no significant difference of opinion between Tetens and Kant here. The fundamental idea is that the mere (empirical) reproduction of appearances must involve generality although it does not involve concepts. But for Kant's purposes it is important to look behind the images through a transcendental inquiry, which can explain the possibility of the very first sensible representations, in which a manifold is represented in one representation. In due course, we shall see that consciousness of objects does indeed, according to Kant, begin with representing parts of space containing an empirical manifold and that the possibility of a conceptual representation of an object presupposes a productive faculty of producing images. The distinction between mere images and what Tetens and Reid call perception is decisive in understanding how Kant thought he could prove the objective validity of the categories by making the necessary changes to Wolff's philosophy. I discuss this in chapter 9. At this point, however, my aim is to make intelligible the general idea of the Schematism for introductory purposes. After that, we will be ready to turn our attention to the Transcendental Aesthetic.

⁹⁵ Tetens, *Versuche*, 135.

1.3. Kant's Schematism and Tetens' Sensible Abstracta

Tetens' claim that images can be general makes sense. Seeing a Rottweiler may arouse fear in a person even if that person has never seen a Rottweiler before. Perhaps the person has had a frightening confrontation with a Doberman, and the image of the Rottweiler becomes associated with that incident. The association would obviously be impossible without some kind of generality in our representations, and nevertheless the association of representations does not necessarily involve concepts, which are general representations. The fact that the association of representations would be impossible without general representations is the rationale behind Tetens' introduction of general images. For Kant, however, it is important to distinguish between schemata and images. Images themselves, he maintains, cannot be general. It is the schemata that make images possible that are. A schema is a product of our productive faculty, which according to Kant is the productive imagination.

So how does Kant think the schemata work? Consider representing a dog. By means of the schema of a dog our imagination can represent a four-footed animal *in general*:

The concept of a dog signifies a rule in accordance with which my imagination can specify the shape of a four-footed animal in general, without being restricted to any single particular shape that experience offers me or any possible image that I can exhibit *in concreto*.⁹⁶

The rule signified by this concept is the schema of a dog. We should not let the fact that Kant speaks about schemata *of concepts* lead us to think that these schemata *depend on* concepts

⁹⁶ A 141 / B 180.

or apperception.⁹⁷ Kant does indeed consider his Schematism from the perspective of concepts and apperception (the Schematism chapter is located after the transcendental deduction of the categories), but he makes clear that the “schema is in itself always only a product of the imagination”.⁹⁸ Apperception, therefore, plays no part in the production of a schema, and we will do well to keep this in mind.⁹⁹ Thus, in the case of the schema of a dog, the schema must be learned from experience (in the non-technical signification of the word) before we can form a concept of a dog.¹⁰⁰ This means that in representing a dog we use the schema of a dog for the production of a shape (*Gestalt*) of this four-footed animal.

Interpreted in this way, schemata are already involved in mere animal-like perception of objects. But before making sense of what this means, let us approach the Schematism from the view-point of apperception, i.e. from that of concept application. Jonathan Bennett has proposed that by his Schematism Kant intended to offer a general theory of concept application.¹⁰¹ On his claim that the Schematism is a general theory, I agree: it is not limited to the application of the categories. But what does the theory explain? According to Bennett, it explains “how we are

⁹⁷ Also Longuenesse has suggested that schemata are prior to concepts. I will discuss her view in chapter 9.

⁹⁸ A 140 / B 179.

⁹⁹ According to Kant, there are three cognitive capacities that cannot be derived from any other capacity, namely sense, imagination and apperception. A schema is thus a product of an original cognitive capacity. To speak of a schematism of the *understanding*, therefore, is talk of the schemata from the viewpoint of concepts, when also another original cognitive faculty, namely apperception, is involved in the act of cognition. See A 94.

¹⁰⁰ Empirical concepts, as I shall argue, are in fact self-conscious empirical schemata. It should be noted that although concepts are self-conscious rules, it does not follow that all concepts are clear representations.

¹⁰¹ Bennett, *Kant's Analytic*, 141–152.

able to recognize, classify, describe”, and that Kant’s explanation for this is that a mental image aids us in deciding whether, for instance, a dog one sees can legitimately be called a dog.¹⁰² Bennett then complains that this does not help much, as we would then face the same problem as we initially faced with the concept. It would have to be explained how the object can be classified with the image and how the image can be classified with other dogs. However, I think Bennett misrepresents what the theory is supposed to be about. The Schematism is not intended to discuss rules for concept-application. Indeed, as also Bennett notes, Kant denies that this is even possible.¹⁰³ We will thus have to look elsewhere for the purpose of the Schematism.

In order to understand what the theory is about we need to understand what the problem is, and as the problem lies in the heterogeneity between objects and concepts, we need to understand the nature of that heterogeneity. Here is how Kant describes the homogeneity requirement:

In all subsumptions of an object under a concept the representations of the former must be *homogeneous* with the latter, i.e., the concept must contain that which is represented in the object that is to be subsumed under it, for that is just what is meant by the expression “an object is contained under a concept.”¹⁰⁴

Now, general logic is founded on the relation of subordination. In the judgement “All dogs are animals” there is no problem regarding homogeneity, because the concept of a dog is contained under the concept of an animal. The problem first arises when an *intuition*, particularly an appearance, is to be subsumed under a concept, for an appearance cannot be contained in a con-

¹⁰² Bennett, *Kant’s Analytic*, 143.

¹⁰³ See A 133 / B 172.

¹⁰⁴ A 137 / B 176.

cept. For Kant, concepts are rules, and the rule describing those (possible) things that we classify as dogs is contained in the rule describing those things that we classify as animals, but the singular representation of my dog, a modification of my mind, is not a rule and it cannot be contained in the concept of a dog. When I greet my dog, and think that she is a dog, I subsume an appearance under the concept of a dog, and it is the possibility of this kind of a subsumption that Kant must be able to explain. Not that there is any *practical* need for this, for our empirical concepts are drawn from our intuitions and we form judgements of appearances all the time. We do not need any guidance for being able to subsume appearances under concepts, and teaching this would even be impossible. The legitimacy of my calling our four-footed companion a dog is never questioned – or if it is, this bears no scientific significance.

On the other hand, the legitimacy of using the categories is in need of a proof. Furthermore, the possibility of the application of the categories to appearances needs explaining (in other words, a *transcendental* doctrine of the power of judgement is necessary), for the categories contain nothing empirical, and as we shall see, the explanation of the possibility of the application of the categories explains the application of empirical concepts as well. As a preliminary consideration, we can here approach the matter from the empirical perspective.

From the above quote, we can see that the question of subsumption of appearances under concepts is a question of containment and content. The obvious question then is: what is the nature of the content of the appearances? In order to answer this question, we need to leave the discussion of the application of concepts for a moment and consider the schemata from the viewpoint of sense and imagination, i.e. from that of perception.

Michael Pendlebury has argued that the possession of a schema involves a preconceptual capacity for synthesis and that

the schemata are thus distinct from concepts.¹⁰⁵ The idea of a pre-conceptual capacity for synthesis can, according to Pendlebury, be made intelligible if we take note of the fact that in themselves our intuitions (empirical intuitions, it should be added) have no content:

For example, in order for one of an agent's intuitions to have the content *triangle*, i.e., in order for it to represent something as a triangle, he must at some inchoate level be disposed to place it in a certain similarity-class of actual and possible intuitions all of which, from a conceptual point of view, could be described as intuitions of triangles. I do not mean to suggest here that he should be able to think about and classify all the relevant intuitions in the same way, but only that he should be disposed to *respond to them* in appropriately similar ways. Likewise, in order for his intuition to have the content *green*, it is necessary for him to be disposed in the same primitive way to "place" it in *another* similarity class of intuitions, all members of which will represent green.¹⁰⁶

Pendlebury continues by making three points on which I agree fully, but with one reservation: I think we need to be very careful on what is meant by 'content'.¹⁰⁷ I will here summarize the points Pendlebury makes and compare them with what we have learned from Tetens.

First, Pendlebury notes that without the groupings the content is impossible. The groupings are not based on the recognition¹⁰⁸ of antecedently existing contents. Concerning this point, one will recall that according to Tetens, the image of a triangle or of the colour green is produced from synthetic representations but

¹⁰⁵ Pendlebury, "Making Sense of Kant's Schematism", 783–784.

¹⁰⁶ Pendlebury, "Making Sense of Kant's Schematism", 785.

¹⁰⁷ Pendlebury, "Making Sense of Kant's Schematism", 785–786.

¹⁰⁸ The correct word in 18th century jargon would be 'reproduction', as 'recognition' refers to conceptual activity.

is not identical with the relevant partial representations of these synthetic representations. It is a new representation, which makes possible the association of representations (and the disposition to respond to triangles or green colours in appropriately similar ways).

Pendlebury's second point is that the groupings are not simply given. The matter of intuition could be grouped in an indefinite variety of ways, e.g. my empirical intuition does not determine my grouping of the colour green. For us the basic contents appear as given but this is because the processes which yield these groupings and contents are not directly accessible to consciousness. In the Tetensian framework this is because all consciousness, even the most elementary kind where no apperception is involved, is represented in inner sense, from which it follows that not the action of the mind itself but only its product can be directly accessible to us. It is noteworthy that Kant describes the imagination as "a blind but indispensable function of the soul, without which we would have no cognition at all, but of which we are seldom even conscious", and that the schematism is "a hidden art in the depths of the human soul".¹⁰⁹ As Pendlebury notes, what is given as such, i.e., not phenomenologically given, as Peter Krausser puts it, cannot be ascertained by inspection, but only by reflection and analysis.¹¹⁰

Third, our grouping-dispositions must involve something which goes beyond our intuitions, because the intrinsic properties of our intuitions cannot determine the contents of our intuitions.

¹⁰⁹ A 78 / B 103; A 141 / B 180.

¹¹⁰ Pendlebury, "Making Sense of Kant's Schematism", 785. On Krausser's note on what is given, see "Kant's Schematism of the Categories", 190, n. 2. It should be noted that although Tetens' method is empirical, he does not arrive at his theory of sensible abstracta through inspection. Tetens is engaged in an inquiry to the prerequisites of what is phenomenologically given, but unlike Kant's, his inquiry is not transcendental. In my view, Kant's Schematism can and should be seen as a refinement and completion of Tetens' work.

As we have seen, according to Tetens our grouping-dispositions are produced by the productive faculty, which he calls the faculty of feigning.

From these remarks Pendlebury infers that the groupings underlying the contents of our intuitions are not found but made and that they are spontaneous syntheses. Further, he argues that having a concept presupposes having a schema and that schemata are preconditions of the subsumption of intuitions under concepts. His point is that a schema is needed for concept application, because without a schema, the intuition would not have the content needed for subsumption.¹¹¹

I hope I have made it obvious that how Pendlebury interprets the role of schemata is compatible with and supported by the reading that Kant's Schematism was influenced by Tetens' theory of sensible abstractions. Both on Pendlebury's grounds and on the hypothesis that Kant was influenced by Tetens we arrive at the conclusion that without pre-conceptual schemata the appearances would not have the content needed for subsumption. Now we must consider how this helps to solve the problem of heterogeneity.

Pendlebury thinks that Kant was unable to assess correctly what the content of appearances is like. I want to argue that Kant had a much more sophisticated understanding of the question of the content of an appearance than Pendlebury realizes. This is because Tetens' view on sensibility, which Kant adopted, brings with it a new conception of representational content that is designed to avoid the pitfalls of "the way of ideas" that Reid had criticised. Had Kant not taken into account Tetens' innovative approach to perceptual representation, all his efforts would have been doomed to fail. But he did take it into account and went even further. Hence, according to Kant, our sensible representations are not ideas. This is clearly stated in his *Stufenleiter*, ac-

¹¹¹ Pendlebury, "Making Sense of Kant's Schematism", 787–788.

ording to which only those concepts that do not refer to objects of possible experience, can be called ideas.¹¹² One could express Kant's view on perceptual awareness by saying that there is no *intentional* content in our intuitions. The modern philosophical discussion on intentionality derives from Franz Brentano (1838–1917). In his *Psychologie vom empirischen Standpunkt* Brentano maintains that every mental phenomenon has the characteristic of intentional inexistence of an object.¹¹³ In other words, every mental phenomenon has reference to a content, or, direction to an object. By the word 'representation' Brentano understands the act of representing, not the object represented.¹¹⁴ Taking this into account one could claim that Kant endorses a similar view, because he thinks that the act of representing produces an undetermined object (an appearance). However, the claim I wish to make clear in the course of this study is that there is, according to Kant, no direction to an object in perceptual awareness. In Kant, the act is not directed to an object of representation but to the representation which, by means of the act, represents and object. I will be in a position to explain this in more detail after explaining my interpretation of Kant's conception of inner sense. I bring this up here in order to draw attention to the importance of understanding Kant's view on the nature of the content of representations in perceptual awareness. Kant's view is that the act of representing is not directed at an object. Rather, it produces an object.

When we understand correctly how Kant uses the word 'idea', many puzzles will be solved and many supposed ambiguities and inconsistencies in Kant's text cleared. Let us take the following passage from Pendlebury for an example:

Kant equates "the *subsumption* of intuitions under pure concepts" and "the *application* of a category to appearances [i.e.,

¹¹² A 320 / B 376–377.

¹¹³ Brentano, *Psychologie*, 115.

¹¹⁴ Brentano, *Psychologie*, 103.

to empirical objects]” (my emphasis). This is a little misleading, for subsumption and application are different kinds of relation. Notwithstanding Kant’s frequently lax use of the term (as in the first sentence of the Schematism), subsumption is a relation between representations and representations (where “representations” are ideas, which include both concepts and intuitions). Application, on the other hand, is a relation between representations and the things which they represent.¹¹⁵

The *Stufenleiter* is a sketch showing what an idea is and what it isn’t. According to that sketch, an idea is a conscious representation but not a subjective representation. It is an objective representation but not an intuition. Thus, contrary to how Wolff thought, the prior act of cognition does not produce an image that could be considered objectively as an idea. An idea is a concept but not an empirical concept. Not even a pure concept of the understanding, Kant insists, can be called an idea. It is a concept of reason. What I want to propose is that we should take the *Stufenleiter* seriously. According to Kant, there are *no* ideas involved in the subsumption of appearances under concepts, and the subsumption really *is* concept application. At this point it will suffice to refer to the *Stufenleiter*, according to which our intuitions are not ideas, and to the fact that Kant made a distinction between apperception and inner sense, which indicates that in the *Critique* Kant no longer thought of inner sense in Wolffian terms. It is thus obvious that neither his conception of ideas nor of inner sense was conventional. Now, since Tetens’

philosophy is founded on a new conception of ideas and inner sense, it is certainly reasonable to try to see whether there might be a connection between Tetens and Kant here. My purpose above has been to show that how Pendlebury interprets Kant’s account of the schemata of empirical concepts is compatible with the assumption that Kant’s view was influenced by Tetens. Now

¹¹⁵ Pendlebury, “Making sense of Kant’s Schematism”, 779.

we should see what implications this supposed influence would have.

Let us consider for a moment what it is that we receive through mere receptivity of impressions. To simplify matters let us consider visual affection. Our outer sense provides the mind with impressions of light and colour in space. We may refer to this as empirical intuition.¹¹⁶ When we intuit an empirical object, we represent it by means of the empirical intuition we have through outer affection. Now, we may ask what qualities the empirical intuition *contains*. It will suffice to give a negative answer: it does not contain any of the qualities of the *object*. Kant as well as Tetens could be seen as responding to the following challenge by Reid:

From whence then come those images of body and of its qualities into the mind? Let philosophers resolve this question. All I can say is, that they come not by the senses.¹¹⁷

In order to illustrate this, let us think of the most fundamental quality of our outer perception: shape. There is no shape in the empirical intuition resulting from outer affection (in the impressions in space). In visual perception, i.e. in the act, the empirical intuition does of course represent its object (or objects), but the object itself is a modification of the mind, more precisely of inner sense, which means that all outer objects are represented in inner sense (in other words, objects of outer sense are represented in inner sense). From this it follows that we do not perceive empirical intuitions. We perceive objects. This could be illuminated by Reid's notion of visible figure, by which he means the figure projected on the retina. Reid notes that "we have never

¹¹⁶ Note, however, that by 'empirical intuition' Kant typically refers to the intuitive element of empirical *apperception*.

¹¹⁷ Reid, *Inquiry*, 92.

been accustomed to make visible figure an object of thought”¹¹⁸ and that it requires a special and rare skill to become conscious of this figure.¹¹⁹ Although what I here refer to by ‘empirical intuition’ does not contain *any* figure, Kant’s (as well as Tetens’) position is the same as Reid’s in the sense that what we are conscious of is not what we sense outwardly.

Before leaving these preliminary thoughts, we should consider the Schematism from yet one perspective. In the example of the dog Kant uses the German word *Gestalt*, which could be translated also as ‘pattern’, and indeed Tetens’ general sensible abstractions and Kant’s schemata touch the issue that in modern cognitive science is called pattern recognition. Peter Krausser has claimed that Kant was more right than he could have known when he said that the schematism is “a hidden art in the depths of the human soul”.¹²⁰ By this Krausser means to say that Kant was simply ignorant of the problem of pattern recognition:

To put it simply and without disguising the naïveté of Kant in this point, he seems to have held that what we think in [empirical and pure sensible concepts] we can see (intuit) when we see (intuit) the objects of these concepts.¹²¹

By the accused naivety Krausser means that Kant did not understand that the relevant patterns, e.g. the shape of a dog, cannot be just given through our senses. The truth is, however, quite the opposite. This is precisely what is implied by Kant’s discussion of the preconditions of the rule of empirical reproduction of representations. Kant notes that the law of reproduction

¹¹⁸ Reid, *Inquiry*, 95.

¹¹⁹ Reid, *Inquiry*, 97.

¹²⁰ Krausser, “Kant’s Schematism of the Categories”, 177. The quote from Kant is from A 141/B 180.

¹²¹ Krausser, “Kant’s Schematism of the Categories”, 177.

presupposes that the appearances themselves are actually subject to [...] a rule, and that in the manifold of their representations an accompaniment or succession takes place according to certain rules; for without that our empirical imagination would never get to do anything suitable to its capacity, and would thus remain hidden in the interior of the mind, like a dead and to us unknown faculty.¹²²

In other words, the empirical reproduction of representations presupposes schemata, through which images of objects first become possible. We shall see that what Kant has in mind in the above text goes beyond the question of the possibility of apprehending shapes and concerns *transcendental* preconditions of apprehension, but nevertheless, his position is that empirical apprehension presupposes pure apprehension and that the shape of a dog, for instance, cannot be just given.

These considerations suggest that the mere representing of an object cannot occur without mental action. It is crucial to the correct understanding of Kant's theory of cognition that we understand the preconditions of representing an object, which is a modification of the mind in inner sense, and of reproducing it empirically. This modification arises by virtue of an act, which is why we represent the object in inner sense. The act will always involve rules, and the question I would like to ask the reader to keep in mind is this: does the mere representing of objects necessarily involve *a priori* rules?

¹²² A 100.

2. THE TRANSCENDENTAL AESTHETIC

2.1. *Kant's Introduction to the Transcendental Aesthetic*

The content of our representations and the subsumption of intuitions under concepts are key issues in this monograph. Understanding the Deductions requires a clear understanding of the content of different kinds of representations and of the possibility of subsuming intuitions under concepts. However, before we can discuss those issues, we will have to take a look at Kant's Transcendental Aesthetic. In the Transcendental Aesthetic Kant sets out to investigate one of the two stems of the capacity for cognition: our sensibility. The Transcendental Aesthetic is the first part of the Transcendental Doctrine of Elements and it opens with an untitled introduction (A 19/B 33 – A 22/B 36). This introduction lays the foundation not only to the Transcendental Aesthetic but to the whole *Critique*, and I will here go through it step by step.

Kant approaches sensibility through the immediacy of intuition:

In whatever way and through whatever means a cognition may relate to objects, that through which it relates immediately to them, and at which all thought as a means is directed as an end, is intuition.¹²³

In the language of the 18th century German philosophy those mental acts that produce representations having a reference to objects were called cognitions, and as the *Critique* is concerned with objective representation, cognition and our capacity for cognition is the proper object of Kant's inquiry. There were differing

¹²³ A 19 / B 33.

conceptions of the nature of cognition. In Wolff's philosophy, the representations produced by cognition are either notions or ideas, whereas according to Tetens, as we have seen, we find empirical evidence of mental representations that refer to objects but nevertheless are not yet ideas.¹²⁴ These differences aside, it was widely agreed that cognitions are or at least involve acts through which objects become represented in the mind. In Wolff's philosophy activeness is built into the system, but also to the more empirically minded philosophers cognition was active. Locke had indeed thought that the mind was at least "for the most part" passive in receiving simple ideas, but as we saw in the introduction, this view had turned out to be a disaster. To say the least, Kant would have nothing to do with such a view, for it would leave the door open to scepticism. If we were just passively to receive representations of objects, it would be impossible to prove that our basic concepts are objectively valid.

We must first consider how the above passage relates to Wolff's philosophy. As I already mentioned, according to Wolff, cognition is an act of the soul, which provides the soul with either a notion or an idea of a thing.¹²⁵ A notion is a general representation and it cannot refer to an object immediately, but senses do furnish us with immediate representations. According to Wolff, the simple apprehension of a thing consists in intuiting the thing either through sense or imagination, so when we do not yet make judgements about objects we merely intuit them, and in intuiting the representation is in an immediate relation to its object.¹²⁶ Thus, Kant begins his revolution with a statement that should be acceptable to a Wolffian. He abstracts from how it is seen that a cognition refers to its object, so his statement is not restricted to any particular theory of cognition. He also abstracts from the mode of cognition. The cognition may be merely sensible or it

¹²⁴ Regarding Wolff, see his *Psychologia empirica*, § 52.

¹²⁵ Wolff, *Psychologia empirica*, § 52.

¹²⁶ Wolff, *Logica*, § 33,

may involve concepts, and it may involve any combination of sense, imagination and apperception whatsoever, but regardless of the manner of referring and the means to achieve it, that through which it is in immediate relation to its object, is called intuition. This first statement thus provides an uncontroversial basis by means of which Kant can begin to guide the reader into thinking about our sensibility correctly. He thinks that the prevalent conception of sensibility needs to be revised but the reader, a Wolffian presumably, must accept the basic assumption from which to commence the analysis, and the assumption is that our act of thought must be directed at an immediate representation of the object of cognition.

Kant suggests that all cognition involves intuiting, because all thought is directed to intuition as its end. A Wolffian would be ready to admit this, as also Wolff thought that conceptual cognition depends on intuitive cognition.¹²⁷ Without an immediate element our thought would not reach objects and the act would not be cognition. As Kant had stated in the *Dissertation*, “thinking is only possible for us by means of universal concepts in the abstract, not by means of a singular concept in the concrete.”¹²⁸ What this means is that mere conceptual thought cannot be cognition, and the immediate intuition is thus an essential element of all cognition.

In this way, the reader is directed to thinking about our sensibility in terms of immediacy. But as our acts of cognition may or may not be conceptual – this is what Kant’s reader would presume – we should ask whether the intuition is also supposed to refer to a cognition and thus to an act. This is a delicate matter. Although what is being analysed here is an act, the intuition itself cannot be an act, for then our thought would be directed at an act, and we would have two simultaneous acts one of which would be

¹²⁷ Wolff, *Deutsche Metaphysik*, § 323.

¹²⁸ Ak. 2:396, § 19.

directed at the other, which is clearly impossible. To this it might be objected that cognition may be mere intuition and that in that case there would be no act involved in cognition. However, even in mere intuiting there is for Kant always a non-objective intuition at which the act is directed. I will explain later what this means. Another possible objection might be raised on the basis that in the *Stufenleiter* intuition is said to be a cognition. If cognition is an act, then intuition must be an act as well. This is certainly true, but nevertheless it holds, that in this quoted passage intuition cannot be cognition. Thus, it seems that by 'intuition' Kant may refer to the act of cognition or to a modification of the mind. Later we will see that this is indeed the case.

In fact, we can see here not only an uncontroversial statement about the need of an immediate representation for conceptual cognition, but also a definition. A Wolffian would call the result of intuiting an idea, but this would be as unacceptable for Kant as it had been for Tetens. Therefore, he decides to call the result of the act of intuiting by the name of intuition. No harm in doing that, of course. One may define the terms as it pleases, and later Kant will show that intuition, the modification, cannot be an idea.

Interestingly, although the subject-matter here is sensibility, we get the impression that by 'cognition' Kant refers to conceptual cognition only. It is stated that our *thought* as a means is directed to intuition as its end, and even though we are here dealing with a non-conceptual element of cognition, Kant's interest lies in conceptual cognition, and it is noteworthy that even in the Transcendental Aesthetic Kant is concerned primarily with thought, not with intuiting as such, and his aim is to prove the objective validity of the *concepts* of space and time. His analysis thus begins from our thought as cognition.

Next, Kant explains how intuition takes place:

This [intuition], however, takes place only insofar as the object is given to us; but this in turn, <at least for us humans,> is possible only if it affects the mind in a certain way. The capacity (receptivity) to acquire representations through the way in which we are affected by objects is called *sensibility*.¹²⁹

Here Kant makes three interrelated points. As intuition is that through which cognition is in an immediate relation to its object, from the view-point of conceptual cognition there cannot be intuition without an object, and Kant expresses this by saying that the object must be given. As we saw in the previous section, ‘given’ can be taken in more than one sense. Since there is no argument suggesting that Kant means that the objects are literally given as such – and considering the history of the theories of perception outlined in the Introduction, this would be an odd claim¹³⁰ – it is natural to take ‘given’ here to mean given for thought.¹³¹ This interpretation is also supported by how he uses the term elsewhere. In the *Dissertation* Kant uses the word ‘given’ as meaning given to either analysis or synthesis.¹³² According to *Jäsche Logic*,¹³³ thought is cognition through concepts, the matter of concepts is the object, and the matter of the judgment “consists in the given representations that are combined in the unity of consciousness in the judgment”.¹³⁴ Ultimately discursive thought must rely on intuitions, because the matter of concepts cannot be

¹²⁹ A 19 / B 33 (“at least for us humans” is added in the B edition).

¹³⁰ It was agreed that objects cannot be just given to us through sensibility. Had Kant intended to endorse such a view, I do not think that he could have expected his readers to take this statement literally without an explanation or argument supporting the claim.

¹³¹ As can be anticipated from the previous section and as it will later turn out, ‘given’ can also be taken as given for imagination. In Wolff’s terminology, this could be phrased as ‘given for reproduction or recognition’. What is given for apprehension is quite another matter.

¹³² See especially the instances in § 1 (Ak. 2:387–389).

¹³³ Ak. 9: 91, §§ 1 and 2.

¹³⁴ Ak. 9: 101, § 18. See also A 68 / B 93.

given through concepts but only through intuitions. Thus, objects are given only through intuitions, but here we are approaching intuitions from the view-point of thought, and it holds that the intuition takes place only insofar as the object is given to us. Kant is thus approaching sensibility through this fact.

The next step in the above passage is the claim that an object can be given to us only if it affects the mind in a certain way. Again, we can see that Kant is here not trying to spell out a considered view on outer affection. He does not even touch the issue of the distinction between phenomena and noumena. He only states (from the view-point of thought) that objects can be given only through affection. The capacity to receive representations through affection is then named sensibility.

Here Kant's claim is potentially controversial as the reader might favour the view that there is no genuine interaction between the soul and other substances, but on the other hand, Kant can expect the reader to agree that at this point statements concerning noumena should be withheld. Even Wolff thought that considerations of empirical psychology must precede considerations of rational psychology.¹³⁵ Even though Kant's inquiry, a transcendental inquiry as it is, does not belong to empirical psychology, it nevertheless must have a starting-point in what we observe in ourselves. I thus take Kant to be saying essentially the same as what Tetens says when he starts his series of observations concerning the nature of representations by claiming that the soul is both active and passive.¹³⁶ We do observe in ourselves that we are affected by objects, and we may call our capacity to be so affected our sensibility.

Kant locates the capacity to be affected by objects in the mind. In the *Psychologia empirica* Wolff defines the faculty of sense as the faculty of perceiving external objects, which induce

¹³⁵ See Blackwell, "Christian Wolff's Doctrine of the Soul", 344.

¹³⁶ Tetens, *Versuche*, 13.

changes in our sensory organs.¹³⁷ For Kant this reaches out too far. We are not concerned with bodily impressions, or material impressions as Reid calls them, but with outer affection in the mind. Intuiting is possible, Kant says, only insofar as the object affects the *mind* in a certain way. Kant is here following in Tents' footsteps. It is the mind and its capacity to be affected that is under investigation. Thus, when Kant is approaching sensibility through immediate representing, he is not, like Wolff, considering an act of intuiting the data of bodily impressions but the result of affection in the mind. The focus here is on a *logical* distinction between intuitions and concepts. Consequently, it is not the act but the result of immediate representing that is under consideration, and this is manifested in calling the result an intuition – not an idea, as Wolff would call it.

The logical distinction between sensibility and understanding can now be declared:

Objects are therefore given to us by means of sensibility, and it alone affords us *intuitions*; but they are *thought* through the understanding, and from it arise *concepts*.

Kant has now introduced the concept of an intuition to the reader. By doing so, he has lead the reader to the distinction between sensibility and understanding, which can be characterized in several ways. According to *Jäsche Logic* Kant says that the distinction between intuitions and concepts is called logical, whereas the distinction between receptivity and spontaneity is called metaphysical.¹³⁸ The approach to sensibility is thus here a logical approach, and the issue of activity and passivity is set aside. Above, sensibility was characterized as the capacity to be affected by objects, i.e. through receptivity, so in the opening

¹³⁷ Wolff, *Psychologia empirica*, § 67.

¹³⁸ *Logik Jäsche*, Ak. 9:36.

sentences of the Transcendental Aesthetic the distinction between sensibility and understanding is approached both through the logical and the metaphysical distinction. However, receptivity is mentioned here only in passing, and the focus is on a logical distinction between intuitions and concepts.

The logical distinction is, of course, the one in terms of which a Wolffian is accustomed to view the faculty of cognition. In Wolff's philosophy sensibility is the lower cognitive faculty and it is the faculty of perception. In his *Psychologia empirica* Wolff defines perception as that mental act through which an object is represented to the soul.¹³⁹ Thinking, on the other hand, involves apperception, through which the mind is conscious of its own perceptions, and it thereby involves both perception and apperception.¹⁴⁰ Kant had already noted in the *Dissertation* that Wolff's characterization of sensibility as an indistinct way to cognize things in themselves is a mistake. For Wolff, says Kant, the distinction between what is sensitive and what belongs to the understanding is only a logical distinction, and by this distinction Wolff has done a disservice to philosophy.¹⁴¹ Now, if Kant's own distinction, the distinction between intuitions and concepts, is also a merely logical one, it seems that it alone cannot do a notable service to philosophy unless it provides us with a basis that will help us to understand the "character of phenomena and noumena", from which Kant had felt that the Wolffian distinction had turned men's minds away. We should thus expect the distinction between intuitions and concepts to be only a preliminary characterization of the distinction between sensibility and understanding.

Although the utility of this distinction is limited, it is the one we should start with. It is the one that leads us to the difference in the nature of the representations of sensibility and under-

¹³⁹ Wolff, *Psychologia empirica*, § 24.

¹⁴⁰ Wolff, *Psychologia empirica*, §§ 25–26.

¹⁴¹ Ak. 2:395, § 7.

standing, but at the same time we need to realise that this distinction does not take into account the difference in the spontaneity required for producing intuitions and concepts. It has been noted so far that sensibility is the capacity to acquire representations through affection but it has not yet been considered whether there are more than one capacity of affection. It has been said that objects are given to us by means of sensibility, but the purpose of this remark was merely to point out that intuitions and concepts are different kinds of representations. By means of concepts no object can be given, and through intuitions nothing can be thought.

To the end of the first paragraph Kant adds a summary of what has been said so far.

But all thought, whether straightway (*directe*) or through a detour (*indirecte*), must ultimately be related to intuitions, thus, in our case, to sensibility, since there is no other way in which objects can be given to us.

This is the general requirement of all human cognition. Our conceptual cognition has a wide range reaching from plain assertions like “That rock is heavy” to complex scientific claims concerning nature. In thinking concepts are combined to concepts in judgments, and judgments in turn can be combined to inferences. Our thought can be very abstract, but ultimately, if the thought is to have an object and thus to be counted as a cognition, it must be related to intuitions.

So how would Kant’s reader react to his opening? It seems that Kant can expect his reader not to reject it. He has asked the reader to think of sensibility as that in us through which cognition is in an immediate relation to its object. Through this capacity objects are given to thought through the way we are affected by objects. A Wolffian should have no trouble accepting this, but nevertheless, we have seen marks of a departure from

Wolff, for cognizing an object has not been defined as acquiring ideas or notions, as it is in Wolff,¹⁴² but intuitions and concepts.

Kant can now move on to introduce the central terminology:

The effect of an object on the capacity for representation, insofar as we are affected by it, is *sensation*. That intuition which is related to the object through sensation is called *empirical*. The undetermined object of an empirical intuition is called *appearance*.¹⁴³

As we saw in chapter 1.1, the terminology relevant to an inquiry into the capacity of cognition was not fixed in the 18th century German philosophy. The above terms are, however, relatively uncontroversial given Kant's starting-point. If sensibility is viewed as a capacity of being affected by an object, then the effect on the capacity for representation would be called sensation (*Empfindung*). The very first effects of affection would of course be called impressions (*Eindrücke*), but as Kant is concerned with thought and consequently with conscious representations (i.e. with *Perzeptionen*¹⁴⁴), they are not discussed here.

Further, if the immediate element of objective representation is called intuition, then it would be appropriate to call an intuition that is related to an object through sensation an empirical intuition. Even appearance (*Erscheinung*) was not an unknown term. Tetens makes use of this term when he discusses Kant's conception of space in the *Inaugural Dissertation*. Tetens equates *Vorstellungen der Dinge in der Erscheinung (rerum phaenomenorum)* with *sinnlichen Schein dieser Dinge*, and complains that the concept of space is often used inappropriately as a real representation of things and their characteristics, i.e. applied to things

¹⁴² Wolff, *Psychologia empirica*, § 51.

¹⁴³ A 19–20 / B 34.

¹⁴⁴ See the *Stufenleiter* in A 320 / B 376–7.

that cannot be objects of sensible representations (like souls), whereas it should be applied solely to these appearances.¹⁴⁵ An appearance thus is an object represented through affection.

What Kant has said so far is that intuition requires that the object is given to us and that this is possible only when the object affects the mind in a certain way. Now, a word of caution is in order here, for if appearance is an object of an empirical intuition and sensibility alone affords us intuitions, then one could gather from this that we cannot be affected by things like other souls, for they are not appearances, as Tetens points out, but things that appear to us in appearance. But Kant is of course not taking a metaphysical position here but rather trying to spell out a starting-point which the reader could accept. However, we may also note in passing that he is careful not to say that the object is the cause of our sensations. Rather, he says that we are affected by the object, and the effect of this affection is sensation. And now that the starting-point has been spelled out, the word ‘object’ gets a new meaning in the context of the Aesthetic. It is an appearance, an object of an empirical representation that refers immediately to it. The object is said to be an undetermined object, which means that it is not determined by the understanding through concepts. This is wholly in line with the prevalent view of Kant’s time.

The basic terminology relevant to an inquiry into cognition, as far as sensibility is concerned, has now been set, and Kant can turn his attention to the object of cognition, i.e. appearance.

I call that in the appearance which corresponds to sensation its *matter*, but that which allows the manifold of appearance to be intuited as ordered in certain relations I call the *form* of the appearance. Since that within which the sensations can alone be ordered and placed in a certain form cannot itself be in turn sensation, the matter of all appearance is only given to

¹⁴⁵ Tetens, *Speculativische Philosophie*, 28 note.

us *a posteriori*, but its form must all lie ready for it in the mind *a priori*, and therefore be able to be considered separately from all sensation.¹⁴⁶

The crucial point here is that the form of appearance must have an *a priori* origin. Kant's justification for this claim is that the sensations cannot be ordered in something that itself in turn is a sensation. Whereas the matter is given to us *a posteriori*, the form "must all lie ready for it in the mind *a priori*". This claim is a refinement of Tetens' position according to which we can sense or feel immediately only what is absolute.¹⁴⁷ According to Tetens, the relative can only be thought, and the thought of a relation is an *ens rationis*.¹⁴⁸ We should keep in mind that for Tetens the word 'thinking' has a very broad meaning, and his claim here is not that all representations of relations require conceptual thinking. Having concepts of relations presupposes that the relations are first represented without concepts, which requires action of the power of thinking (through the faculty of feigning).¹⁴⁹ Also Kant thought that representing relations requires mental action, but here we are interested only in the fact that we can sense only the matter, and that that which allows the matter to be intuited as ordered in certain relations must lie in the mind *a priori*. Again, Kant is approaching sensibility through a logical distinction here. The spontaneity required for representing appearances is not under investigation. Hence, in the above claim Kant is not interested in particular relations in objective representations but in the form that makes those relations possible.

Because of this *a priori* origin we can turn our attention from the objects back to the mind that has the representation of an object. If the form of the object, i.e. that in which what corre-

¹⁴⁶ A 20 / B 34, translation modified.

¹⁴⁷ Tetens, *Versuche*, 191–192.

¹⁴⁸ Tetens, *Versuche*, 192 and 276.

¹⁴⁹ Tetens, *Versuche*, 276–277.

sponds to sensation is ordered, is not given to us *a posteriori* but is imposed to the object by the mind, then we can set out to investigate our *a priori* sensibility, because apart from sensation, which belongs to sensibility, there must be an *a priori* element (which also belongs to sensibility) in our intuition of the object.

Kant calls this *a priori* element by the name of pure intuition:

I call all representations pure (in the transcendental sense) in which nothing is to be encountered that belongs to sensation. Accordingly the pure form of sensible intuitions in general is to be encountered in the mind *a priori*, wherein all of the manifold of appearances is intuited in certain relations. This pure form of sensibility itself is also called pure intuition.

Kant illustrates what the pure intuition is with the following:

So if I separate from the representation of a body that which the understanding thinks about it, such as substance, force, divisibility, etc., as well as that which belongs to sensation, such as impenetrability, hardness, color, etc., something from this empirical intuition is still left for me, namely extension and form. These belong to the pure intuition, which occurs *a priori*, even without an actual object of the senses or sensation, as a mere form of sensibility in the mind.

It is important to note that the representation of a body is not an example through which we can understand what *a priori* intuition is. Instead, what is here taken into consideration, is what kind of determinations this representation has. Kant instructs us to leave out that which the understanding thinks *a priori* in this representation. That includes substance, force and divisibility. When we do that, what we have left of this representation, includes *a posteriori* determinations such as impenetrability, hardness and

colour. Although these may be conceptually determined in the representation, these determinations have their origin in sensation. But even when we leave out all determinations of this kind, there still remains (as sensations must be ordered in certain relations) “extension and form”, and these belong to pure intuition.

What Kant means by form is not the shape of a body but rather the form that first makes possible the representation of an object of an empirical intuition (and also its shape, as it will turn out). This is confirmed by the statement that the form occurs “*a priori*, even without an actual object of the senses or sensation”. Thus, we may also conclude that through mere affection, i.e. without mental action, no shape and consequently no outer object can be represented.

Now, this form can be made an object of scientific investigation:

I call a science of all principles of *a priori* sensibility the *transcendental aesthetic*. There must therefore be such a science, which constitutes the first part of the transcendental doctrine of elements, in contrast to that which contains the principles of pure thinking, and is named transcendental logic.

This science would then be based on a logical distinction between sensibility and understanding, and it would have as its object the *a priori* element of sensing.

In the transcendental aesthetic we will therefore first isolate sensibility by separating off everything that the understanding thinks through its concepts, so that nothing but empirical intuition remains. Second, we will then detach from the latter everything that belongs to sensation, so that nothing remains except pure intuition and the mere form of appearances, which is the only thing that sensibility can make available *a priori*. In this investigation it will be found that there are two pure forms of sensible intuition as principles of *a priori* cognition,

namely space and time, with the assessment of which we will now be concerned.

The design of this introduction to the science of transcendental aesthetic is elegant. It begins with an analysis of a conception of cognition which anyone could accept. It states that conceptual cognition necessarily involves both a mediate and an immediate element and that only through the immediate element an object can be given for cognition. For us this means affection through sense. The immediate element is labelled intuition.

Next it is stated that in our cognition the element produced by affection is called sensation and that the intuition containing sensations is called an empirical intuition. The object of this kind of cognition is termed appearance. There are also non-empirical cognitions, which nevertheless must, of course, involve intuitions, but this is not taken into consideration here, just as concepts and spontaneity were set aside above.

It is then argued that when we leave out sensation from the intuition, there remains a form, which must be *a priori*. Kant calls this element pure intuition, and the empirical intuition thus contains a pure intuition. The science of transcendental aesthetic studies the principles of our *a priori* sensibility, from which the pure intuition originates. In the science of transcendental aesthetic, we investigate the mere form of intuition, and this form consists in time and space.

Now, the discussion of time and space as pure intuitions originates from Kant's *Inaugural Dissertation*, where it is argued that time and space are formal principles of the sensible world.¹⁵⁰ Kant's position in the *Critique* is, however, not exactly the same as in the *Dissertation*. In the letter to Herz of February 21st, 1772, Kant admits that in the *Dissertation* he could not explain how our

¹⁵⁰ Ak. 2:398–405.

representations can be related to their objects.¹⁵¹ In the *Critique* he explains this, and important changes have to be made to his earlier view. We should now examine what these changes are.

2.2. *Time and Space*

In the *Inaugural Dissertation* Kant had argued that time and space are *a priori*, that they are singular representations and that they are pure intuitions.¹⁵² These claims are now restated in the *Transcendental Aesthetic*. However, one vitally important aspect of his account was yet to be developed when Kant wrote the *Dissertation*. What has changed in the *Transcendental Aesthetic* is that time is now declared to be the form of inner sense. In the *Dissertation*, the distinction between outer and inner sense is not even mentioned in the discussion of time, but here it is stated right in the beginning of the section on *space*:

By means of outer sense (a property of our mind) we represent to ourselves objects as outside us, and all as in space. [...] Inner sense, by means of which the mind intuits itself, or its inner state, gives, to be sure, no intuition of the soul itself, as an object, yet it is still a determinate form, under which the intuition of its inner state is alone possible, so that everything that belongs to the inner determinations is represented in relations of time.¹⁵³

My aim here is not to assess whether Kant was right or wrong in arguing that space and time are *a priori* forms of our sensibility. I will rather try to bring forth what Kant makes out of this conclusion. The *Transcendental Aesthetic* is not designed

¹⁵¹ Ak 10:130.

¹⁵² Ak. 2:398–403.

¹⁵³ A 22–3 / B 37.

merely to state the transcendental ideality of time and space. Its findings are needed when we move on to the Transcendental Analytic, where we are no longer conducting an investigation based on a merely logical distinction between sensibility and understanding. For this purpose, it is useful to view the Transcendental Aesthetic against the background of the *Dissertation*.

Let us first go through the claims that are common to both the *Dissertation* and the Transcendental Aesthetic.¹⁵⁴ These claims are:

1) The representations of time and space are not drawn from experience. Representing something as outside me and outside one another on the one hand or succession and simultaneity on the other presuppose space and time respectively.

2) The representations of time and space are singular, not general. There is only one space and one time, and things are represented *in* time and space, not *under* general concepts of time and space. Different spaces can only be understood as parts of one and the same unique space; different times only as parts of one and the same time.

3) Time and space are pure *a priori* intuitions.

4) Concepts of time and space are objectively valid in regard to appearances but the application to appearances is the only legitimate use of them.

The objective validity of the concepts of time and space has thereby been shown, but this is not the sole purpose of the Transcendental Aesthetic. In it space is declared to be the form not only of outer intuition but of outer *sense*. Similarly, time is said to be the form of inner intuition and of inner sense. In the *Dissertation*, by contrast, Kant speaks much more vaguely about time and space as forms of our sensibility. Kant does point out that whereas the concept of space concerns the intuition of an

¹⁵⁴ The discussion on time and space can be found in the *Inaugural Dissertation* on Ak. 2:398–2:406 and in the Transcendental Aesthetic on A 22–A 49.

object, time “concerns the *state*, especially the *representative state*.”¹⁵⁵ By this remark Kant refers to the use of these concepts by the understanding. He goes on to note that “space is also applied as an image to the *time* itself”. These claims are reiterated in the Transcendental Aesthetic, but this time his point is put in more sophisticated terms:

Time is nothing other than the form of inner sense, i.e., of the intuition of our self and our inner state. For time cannot be a determination of outer appearances; it belongs neither to a shape or a position, etc., but on the contrary determines the relation of representations in our inner state. And just because this inner intuition yields no shape we also attempt to remedy this lack through analogies, and represent the temporal sequence through a line progressing to infinity [...] ¹⁵⁶

It is obvious that in the *Dissertation* Kant did not think that time is the form of inner sense. He had discovered that time and space are pure *a priori* intuitions but he did not yet know how to prove the objective validity of pure *a priori* concepts of the understanding. Now, in the *Critique* we can see that answering this riddle required him to conduct a more thorough inquiry to the mind, and this is what we see already in the Transcendental Aesthetic. The Transcendental Aesthetic is not just a separate section dealing with the form of our sensibility. We should rather see it as a step in the argument for the objective validity of the categories, and a crucial point of this part of the *Critique* is that time is the form of inner sense.

¹⁵⁵ *Inaugural Dissertation*, Ak. 2:405. Translation modified.

¹⁵⁶ A 33 / B 49–50.

2.3. *Time and Inner Sense*

For a present-day reader, the doctrine of inner sense is not an easy doctrine to comprehend. We are not accustomed to thinking that the mind can *sense* itself. Sensing for us means outer sensing through our physical organs.

But we should keep in mind that it is the mind that is under investigation, not the body. Our sense-organs are only appearances and our awareness of these organs does not bring us any closer to the mental aspect of sensing. If we turn our attention to the mind and accept, as Kant did, that the mind is both active and passive, then there should be no mysticism involved in the conclusion that sensing can be both outer and inner. Perhaps it is odd that we can sense our own activity, but it certainly is no less odd that we can sense activity that is not our own. So, if we are affected by things outside ourselves and if that through which this occurs in our mind is called sense, wouldn't it be natural to call that through which we are affected by ourselves a sense as well? I think it would, and so did Kant and Tetens.

But let us first see if we can understand Kant's view on inner sense any better on the basis of his introduction to the *Transcendental Aesthetic*. I have argued that Kant can expect a Wolffian not to reject his starting-point. Now although Wolff does not use the term 'inner sense' in his *Psychologia empirica*, it does occur in *Logica* (§ 31), where it is stated that the mind as it were perceives itself through inner sense, when it is conscious of what occurs in itself. Baumgarten uses the term to denote the ability to represent the state of one's soul. According to Baumgarten, we have sensations not only through outer sense but through the inner sense as well, which he calls consciousness in the strictest sense.¹⁵⁷ So even to a Wolffian it would not be an odd claim to say that we have an inner sense. In the Wolffian use of the term,

¹⁵⁷ Baumgarten, *Metaphysica*, § 535.

however, inner sense is synonymous with apperception, as apperception is reflection on the soul's representations. Kant still adhered to this view when he wrote the *Dissertation* but in the *Critique* his view has changed. To see how it has changed, let us see once again what Wolff says about mental action involved in cognition.

According to Wolff cognition involves two acts. The first act, which is called perception, produces a representation of an object. This representation he calls an idea. The second act required for cognition is the act of apperception which is an act of the understanding. Perception is thus not the representation of an object but the act that produces this representation. Now, according to Wolff the representation that results from the act of perception is a confused representation of an object. Distinctness is brought to the representation through an act of the understanding.

This is where Kant thought that Wolff's account is profoundly mistaken. In the *Transcendental Aesthetic* Kant accuses the Leibnizian-Wolffian philosophy for doing great harm to the investigations of the nature and origin of our cognitions in considering the distinction between sensibility and understanding as merely logical.¹⁵⁸ In his view, it is transcendental. According to his revised view, the distinction between sensibility and understanding does not concern the form of distinctness and indistinctness but origin and content. Kant had complained about this mistake already in the *Dissertation* but at that time he did not yet know how he could prove the objective validity of the pure *a priori* concepts of the understanding. Finding an answer to this question required him to internalize the relation of the representation to its object, and this in turn brought with it a view on mental action that differs from the view endorsed by Wolff.¹⁵⁹

¹⁵⁸ A 44 / B 61.

¹⁵⁹ The "internalization" of this relation is a term I adopt from Beatrice Longuenesse.

It is impossible to explain the nature of this change adequately on the basis of the Transcendental Aesthetic alone. This is because the Transcendental Aesthetic itself is founded on a merely logical distinction between sensibility and understanding. Taken in isolation, its purpose is to show that time and space are pure *a priori* intuitions and that the concepts of time and space are objectively valid in regard to appearances, but not in regard to things in themselves. However, we can make some provisional observations here without getting too much ahead of ourselves.

Kant says that because the inner intuition yields no shape we have to represent the temporal sequence through a line progressing to infinity.¹⁶⁰ By this Kant of course refers to the use of the understanding when it thinks about time, and the point is that in this use the representation of time is only possible by means of outer intuition, space. Now, in the Analytic Kant claims that a representation of space requires a temporal act, i.e. it requires time, “for *as contained in one moment* no representation can ever be anything other than absolute unity.”¹⁶¹ A representation of space can never be an absolute unity (a point can only be represented as a limit), and so we face the situation that a representation of time presupposes a representation of space, and a representation of space presupposes time. Obviously, this is possible only if the time presupposed by the representation of space is not a representation *of* time, and this can help us to understand how Kant thought that Wolff’s account on mental action in cognition needs revising.

Kant’s position entails that a representation of time presupposes two acts. On the one hand, it presupposes a representation of space (a line progressing to infinity), on the other hand this latter representation has to be thought as a representation of time. Now, it is Kant’s position that also in an empirical representation

¹⁶⁰ A 33 / B 50.

¹⁶¹ A 99.

of an outer object the shape of the appearance has to be produced through a mental act. If we are then to think this appearance through the understanding, we will have to perform another act, which will be directed at the appearance. On the face of it, this is just what Wolff thought: cognition requires both an act of perception and an act of the understanding (apperception), but if we look closer, Kant's view is radically different.

According to Wolff, what the perception produces is an idea of an object, but according to Kant it is the *object* of an empirical intuition, i.e. the appearance, that is produced by the act of perception, not an idea of it. The empirical intuition does of course have an *a priori* form, but the mind does not have to act in order to place the sensations, i.e. the matter of the empirical intuition, in the form. Rather, the act of perception consists in using this representation to represent an empirical object. Now if the mind is able to produce this object, the object itself will have to be a modification of the mind. And this is indeed confirmed by Kant in the *Analytic*.¹⁶² *How* the mind produces the appearance can be discussed only on the basis of what Kant says in the *Analytic*, and my purpose in making this preliminary remark is only to draw attention to the importance of the correct understanding of Kant's conception of inner sense and to the fact that a further development had occurred since the writing of the *Dissertation* in Kant's opposition to Wolff. And now that he has the answer to the question of the ground of the relation between representation and its object, he is able to state more precisely what is wrong in Wolff's logical distinction between sensibility and understanding. The true distinction is transcendental, meaning that it concerns the origin and content of representations, and in order to understand what this means we need to consider the metaphysical distinction between sensibility and understanding, i.e. the distinction between receptivity and spontaneity. As we have seen, Kant

¹⁶² A 98–99.

thought that through mere receptivity there can be no cognition whatsoever, because the form of outer sense cannot by itself give us anything more than extension. It cannot give us the shape of objects. It cannot give us appearances. Time has now been declared to be the form of inner sense, and as it is the *a priori* condition of all appearance in general,¹⁶³ all cognition presupposes mental action. Whereas for Wolff inner sense was only another name for apperception – an as-it-were-sense – for Kant it is now a condition of appearances: without inner sense the mind could not represent what it perceives. Kant has also dropped the use of the word ‘idea’: in the *Dissertation*, he still made use of the term, but in the *Transcendental Aesthetic* and the *Analytic of Concepts* there are no philosophically relevant occurrences of it. As we saw already with Tetens, these developments go hand in hand: if the representations that outer affection produces in us are not objective representations, they cannot be ideas.

2.4. The Need for Inner Sense: From the Inaugural Dissertation to the Critique

We have now seen that Kant’s views on sensibility had changed after the *Dissertation*, and before moving on to the *Analytic*, we should consider what had happened between the *Dissertation* and the *Critique*. In the *Dissertation* Kant had complained that Wolff erroneously saw the distinction between sensibility and understanding as logical and stated that in truth they differ in kind. His position was that the concepts of space and time are valid only in regard to the sensible world and that although these concepts are *a priori* they nevertheless are acquired concepts. At that time, his position was that they are not acquired “by abstraction from the sensing of objects” but “from the very action of the

¹⁶³ A 34 / B 50.

mind, which coordinates what is sensed by it".¹⁶⁴ Cognition, as far as it is subject to the laws of sensibility, is cognition of the phenomenal world, but our cognition is not limited to this. Our intellect can provide us with rational cognition of things as they are, i.e. of the noumenal world.¹⁶⁵ This is possible through the real use of the understanding by means of its pure concepts.¹⁶⁶ Kant also thought that the concepts of the pure understanding (concepts of existence, necessity, substance and cause) are acquired concepts: they are abstracted from the laws inherent in the mind.¹⁶⁷

Tetens did not accept Kant's position. In his *Über die allgemeine speculativische Philosophie* Tetens suggests that we should distinguish transcendent concepts from those concepts that represent either physical or immaterial beings. The transcendent concepts would be such that they pertain to what is common both to the sensible and to the intellectual. As to the question of an exhaustive list of these concepts he is uncertain. The concepts of reality, substance and cause he counts among those concepts, and he seems to think that Kant may be right in claiming that the concept of space is not a transcendent concept. According to Tetens, the task of a transcendent philosophy consists in the observation of the human understanding, its modes of thought (*Denkarten*), its concepts and their origin. Above all, realization of the transcendent concepts is called for.

Tetens thought that all general concepts are ultimately derived from sensations. On the face of it this seems contrary to what Kant thinks, but Tetens distinguishes between two classes of sensations: inner and outer. Through outer sensations we sense bodies and their characteristics, through inner sensations we sense ourselves, our thought, our will etc. If a concept is derived from inner sensations alone, the concept is a representation of an intel-

¹⁶⁴ Ak. 2:406, § 15.

¹⁶⁵ Ak. 2:392, § 4.

¹⁶⁶ Ak. 2:394, § 6.

¹⁶⁷ Ak. 2:395, § 8.

lectual object, and if a concept is derived from outer sensations, the scope of the concept is limited to material objects. Our reflection can, however, reveal something that is common to both classes and thus arrive at the transcendent concepts.

Tetens thus thinks that his conception of inner sense as a genuine source of sensations can provide a link between the sensible and the intellectual. Lambert had pointed out to Kant shortly after the publication of the *Dissertation* that such a link was to be sought for. If there were no interchange between the sensible and the intellectual, Lambert noted, the concepts of metaphysics would not apply to phenomena.¹⁶⁸ In the letter to Herz, Kant had to admit that he had not taken into account the question of how a representation can relate to its object. In particular this was a problem for the pure *a priori* concepts of the understanding. How can they be in conformity with sensible representations when they are not drawn from experience? Mathematical concepts do not pose such a problem, because in mathematics we produce the representations of the objects of cognition.¹⁶⁹

In the *Transcendental Analytic* it will now be revealed that the new conception of inner sense enables Kant to answer this question and also to give an answer to the question of the possibility of transcendent concepts. The *Transcendental Aesthetic* has thus given us not only the distinction between intuitions and concepts but also explained the nature of our receptivity. Kant has concluded that through *mere* receptivity no object can be represented. The intuitions we receive through outer sense (impressions in space) can of course be said to be representations of those objects that affect the mind, but these intuitions are not ideas. They are not cognitions of those objects and they do not result in consciousness of those objects. We can cognize only appearances, but these objects cannot be represented without

¹⁶⁸ Letter to Kant, Ak. 10:105–109. See also Frederic C. Beiser, “Kant’s intellectual development: 1746–1781”, 53.

¹⁶⁹ Letter to Herz, Ak. 10:130–132.

mental action, which in turn has its sensible conditions in the pure form of inner sense.

Perhaps this can be clarified further by considering Kant's puzzlement expressed in the letter to Herz. Kant considers two possible cases of the ground of the relation between representation and object. He says that when the representation contains nothing but the way in which the subject is affected by the object, it is easy to see how a representation can be in conformity with its object.¹⁷⁰ Already in the *Dissertation* Kant had concluded that our sensible representations do not *resemble* the object that has caused them, but there is still a conceivable relation between them. Here, in the Transcendental Aesthetic Kant began by considering the object that affects the mind, and we saw that the "passive"¹⁷¹ representation resulting from this affection is not yet a cognition. Later we will learn (as we have already anticipated) that it doesn't even enter our consciousness, so this case of the relation between representation and object is of no use to us.

The other case where Kant thinks that the relation between representation and object would be conceivable is the case in which the representation produces the object by being active with regard to the object.¹⁷² This would be the case with the divine understanding, but as our intellect is not an *intellectus archetypus*, Kant says that he is unable to see how our pure intellectual concepts could have such a relation to objects. Kant's puzzlement continued until he saw that Tetens' philosophy does indeed provide the basis for an answer. Our intellect is, to be sure, not an *intellectus archetypus* because we do not have an intellectual intuition. But our understanding does have the ability to use our *sensible* intuition for producing objects. Thus, the answer requires an investigation of the spontaneity involved in cognition, and here

¹⁷⁰ Ak. 10:130.

¹⁷¹ In the letter to Herz Kant considers the relation of "passive or sensible representations" to objects. See Ak. 10:130.

¹⁷² Ak. 10:130.

in the Transcendental Aesthetic Kant has presented the necessary requirement of our receptivity for this end. All our cognition requires mental action and all our cognition is represented in the *a priori* form of time. But Kant has, of course, also offered a proof for the objective validity of the concepts of space and time: they apply to appearances but not to things in themselves. In other words, by claiming that there is no legitimate transcendental use of those concepts, Kant has provided a partial answer to the questions Tetens had put forward in the *Speculativische Philosophie*, and indeed in a very Tetensian spirit. In the Transcendental Analytic he will now turn his attention to the other class of pure *a priori* concepts.

3. THE METAPHYSICAL DEDUCTION

3.1. *Introduction to Transcendental Logic*

Manfred Kühn has argued that Kant's project of providing a transcendental deduction of the categories, as an answer to the question of how it can be shown that the categories have possible objects,¹⁷³ is originally motivated by Wolff's view that we must be able to show that our concepts are possible concepts. Wolff thought that in the case of arbitrary concepts – i.e. of concepts whose possibility is not evident through experience, because they are not derived either directly from sensation or from the concepts of particular things by abstraction – we must show that these concepts have possible objects.¹⁷⁴ According to Kühn, it was Lambert who raised the question of a proof for the possibility of arbitrary concepts in the context of *a priori* knowledge.¹⁷⁵ Lambert was confident that complex concepts can be analysed into simple concepts, and he thought that a list of those simple concepts that are *a priori* and the representation of which shows at the same time their possibility, can be given. These concepts can be called basic concepts.

Tetens was not convinced that Lambert's list (or, in fact Locke's list, as Lambert draws his list from Locke) of basic *a priori* concepts is the correct one, and he question whether others should accept the list as well.¹⁷⁶ The general concern then is: how can we be sure of any list that it is the correct one? Kant's first task in the *Transcendental Logic* is to answer this question. He

¹⁷³ To be precise, this is the question of objective reality.

¹⁷⁴ Kühn, "The Wolffian Background of Kant's Transcendental Deduction", 232.

¹⁷⁵ *Ibid.*, 236–238.

¹⁷⁶ Tetens, *Speculativische Philosophie*, 84

plans not only to find the basic concepts but also to prove that his list is the correct one.

Transcendental philosophy is concerned with the origin and content of our representations, so origin and content will also be the concern of transcendental logic. Since general logic does not deal with the content of our concepts at all, Kant has something very peculiar in mind when he speaks about transcendental philosophy as logic. And as it is logic that we are dealing with in the *Transcendental Analytic*, we need to remind ourselves that we are inquiring into cognition in the strict sense, i.e. into cognition based on concepts. Our concepts have a certain content, and our cognition has its origin in the understanding.

There are two kinds of objective representations: intuitions and concepts. As logic deals with concepts, transcendental logic is based on the logical distinction between sensibility and understanding. I emphasized in the previous chapter that in the *Transcendental Aesthetic* Kant's focus is on the logical distinction between sensibility and understanding, and that the mental action necessary for cognition is not his concern in that part of the *Critique*. Although Kant's Introduction (A 50/B 74 – A 64/B 88) to the *Transcendental Logic* is not yet the place to consider mental action, the metaphysical distinction between sensibility and understanding gains momentum in it. In the opening paragraph (A 50–51/B 74–75) of his Introduction Kant offers a preliminary account of the relation between cognition and its elements, thereby introducing us to the problem of the content of our concepts. This paragraph will provide us with very important information, and I will be more thorough in commenting this paragraph than I will be in commenting the rest of the Introduction.

However, at this stage Kant is still trying to point the reader to the right direction, and this is not yet the place to reveal the true nature of spontaneity. Instead, the dichotomy between receptivity and spontaneity is expressed in terms of impressions and concepts:

Our cognition arises from two fundamental sources in the mind, the first of which is the reception of representations (the receptivity of impressions), the second the faculty for cognizing an object by means of these representations (spontaneity of concepts); through the former an object is *given* to us, through the latter it is *thought* in relation to that representation (as a mere determination of the mind).¹⁷⁷

In this passage sensibility and understanding are approached from their extremities: from impressions on the one hand and from concepts on the other. Impressions were not discussed at all in the Transcendental Aesthetic, but they are what we receive through outer affection. For Kant, as well as for Tennens, impressions are mental impressions, not material as they were for Reid and Wolff, and this Kant confirms in the above passage by saying that the receptivity of impressions is a fundamental source of the mind. A natural way to interpret the role of impressions would be to assume that they are non-conscious representations without which apprehension would be impossible, and that through them an appearance is given to thought.

We may compare the above statement – in which the reception of representations is equated with receptivity of impressions – with the Transcendental Aesthetic where Kant said that the “effect of an object on the capacity for representation, insofar as we are affected by it, is *sensation*”.¹⁷⁸ We already saw that this was an introductory note stated for the purpose of introducing the subject-matter to the reader. There is nothing wrong with it, as long as we do not take it to express a considered view on sensibility, but it will be in need of refining, because it does not distinguish between phenomena and noumena and it does not distinguish between inner and outer sense, or conscious and non-conscious representations. Now that our sensibility has been di-

¹⁷⁷ A 50 / B 74.

¹⁷⁸ A 19–20 / B 34.

vided into inner and outer sense, Kant is able to put the matter in more precise terms. Because sensations are conscious representations and because they are represented in inner sense, they require spontaneity. Impressions are thus the only effects of *mere* receptivity. Concepts are the other extreme, and through the spontaneity of concepts the object is thought. Kant will have more to say about the role of spontaneity in simple apprehension of appearances, but here the gulf between impressions and concepts is not yet taken into scrutiny. Note that by the remark in parentheses in the above passage Kant seems to be saying that the object is a mere modification of the mind, thus indicating the departure from the way of ideas.

Although Kant has not mentioned intuition here, he nevertheless makes a quick move to contrasting concepts with intuitions:

Intuition and concepts therefore constitute the elements of all our cognition, so that neither concepts without intuition corresponding to them in some way nor intuition without concepts can yield a cognition.¹⁷⁹

We are thus again faced with the logical distinction between sensibility and understanding. But how are these two distinctions related to each other? To answer this, we need to consider how impressions are related to intuitions. The first thing to note is that the impressions as such are not intuitions. They are, of course, ordered in a form in reception, and the resulting representation is an intuition, but our thinking is not directed at this result of outer affection: it is directed at the given object, and this object is an intuition, as Kant suggests above. From the Transcendental Aesthetic we have learned that the given object is a spatiotem-

¹⁷⁹ A 19–20 / B 34.

poral object¹⁸⁰ represented immediately in inner sense. It is at this intuition that our thought is directed, not at the empirical intuition, so what is given to *thought* is the object. Again we see that thought is not directed at an idea of an object but at the object itself, i.e. at a modification of the mind.

In the Transcendental Aesthetic we were concerned with intuitions, and here the interest lies in our concepts, i.e. in mediate representing. Since 'cognition' is here taken in its strict sense, signifying thought of objects, it necessarily involves both an immediate and a mediate element, and here the latter is taken into scrutiny.

We have already seen that there are pure intuitions that contain the form of intuiting, and now it is stated that there are also pure concepts:

Both are either pure or empirical. *Empirical*, if sensation (which presupposes the actual presence of the object) is contained therein; but *pure* if no sensation is mixed into the representation. One can call the latter the matter of sensible cognition.¹⁸¹

This terminology is already familiar to us, but consider what Kant said in the Transcendental Aesthetic: "I call that in the appearance which corresponds to sensation its *matter*".¹⁸² Here it is said that sensation itself is the matter of sensible cognition. Cognition, which is an act, thus uses sensation in representing the object but the appearance itself does not contain sensations.

Based on what we have found out so far, we can now make the following conclusions: The empirical intuition *does*

¹⁸⁰ Here Kant is concerned with an object that is represented through outer affection. There are of course also sensible objects of thought that do not arise through this way.

¹⁸¹ A 50 / B 74.

¹⁸² A 20 / B 34.

contain sensation and it is related to the appearance, which is its object. The appearance itself is an intuition but it *does not* contain the sensation through which it is represented. It contains something that corresponds to sensation. The object must therefore be a pure representation, and representing an appearance is an *a priori* affair although it is not possible without sensation. Nevertheless, cognition does use sensation as its matter in the act of thinking its object. One cannot overemphasize the importance of understanding this correctly, because in the Transcendental Deductions we need to know what Kant means by empirical intuition. Thus, we need to keep in mind that cognition in the strict sense requires sensation and empirical intuition but the appearance does not contain anything empirical.

In order to be absolutely sure that we understand the meaning of the terms ‘sensation’ and ‘appearance’ correctly, let us use the above quotes from the Aesthetic and the Analytic as our guide: 1) An intuition is empirical if sensation is contained therein. 2) The appearance contains something that corresponds to sensation. 3) Sensation is the matter of sensible cognition. If we take these remarks seriously, we come to the conclusion that an appearance is an intuition but not an empirical intuition, and that an empirical intuition contains sensations whereas an appearance does not.

At the face of it, this may seem strange, but when we keep in mind what Kant has said in the Transcendental Aesthetic, a closer look will clarify the possible obscurity. His new conception of the object given to thought would not be possible without a new conception of representing and inner sense. Kant’s view is not that we receive ideas of objects through outer sense, and he adopts Tetens’ solution to Reid’s challenge by thinking that we receive through outer sense mental impressions that are not ideas of objects. When the mind acts on the resulting intuition, it is able to represent appearances, which it then can think by acting on the

resulting intuition. Kant's solution is more sophisticated than Tetens' but the basic idea is the same.

Perhaps I should try to illustrate this with an example. Consider perceiving an animal with a camouflage; say a gecko, which blends perfectly into the background. Maybe you first see the gecko and then lose sight of it, although you know that the animal has not gone anywhere and that you are just unable to locate it. You have the same sensations as you did before but you do not perceive the object you did a moment ago. If you can then spot the animal again, nothing empirical has changed in your intuition. What has changed is what you do with your empirical intuition. If you cannot grasp the outline of the animal, you do not perceive it, despite the fact that you do have the necessary empirical matter for representing the appearance.

What I hope this example shows is that one has to act in order to represent the shape of the object of perception, in this case the gecko. If this is so, then it is obvious that the act is directed at the *a priori* intuition and that the subject is affected by this act. When you spot the animal again, your inner state is modified, and yet there is no change in outer affection. Thus, while it is true that you cannot represent an appearance without an empirical intuition, it is possible to have an empirical intuition without representing an appearance. Representing an appearance requires an act, and the act changes the intuition you represent in inner sense.

Our sensations thus "suggest", as Reid would say, the objects of perception. Reid's influence is evident here, for the empirical intuition, which contains the sensations, represents the object immediately without an idea. But on the other hand, for Kant the appearance is transcendently ideal, and it is dependent on mental impressions. This makes his position fundamentally different from Reid's common sense account.

What, then, is the relation of conscious sensations to non-conscious mental impressions? Here we can see the influence of

Tetens. Remember that inner action is needed for the apprehension of an appearance, and that the appearance itself is not composed of the matter of empirical intuition: it does not contain anything empirical. Nevertheless, without outer affection, i.e. without impressions, the apprehension would, of course, be impossible. Now, as we saw in section 1.1, Tetens argued that our sensations, although subjective in nature, depend on objective representations. This is also Reid's position, but unlike Reid, Tetens thought that we need mental impressions for objective representations. Let me present Tetens' view through Kant's terminology. According to Tetens, an empirically reproducible representation of the colour green presupposes the production of an image of this colour. In other words, green impressions are not empirically reproducible representations, but the sensation of green is. On the other hand, impressions cannot be made into sensations directly. The production of an image of green presupposes a representation of a green *object*. As we saw, Tetens thought that the distinguishability of the green colour of a leaf from the motion of the leaf presupposes that at least one of these representations has previously occurred in connection with some other representation. Thus, an empirically reproducible sensation cannot be contained in an appearance, and the objective representation of an appearance is prior to the subjective sensation.

This view is not surprising, considering the historical context. Like Wolff, Tetens thinks that distinguishing objects is prior to distinguishing the self, i.e. that consciousness of the self depends on consciousness of objects. As we shall see later, Tetens thinks that the higher acts of cognition are reducible to the very same acts which produce images, so sensations too should be dependent on representing objects. In other words, the distinguishability of an object is prior to the distinguishability of a sensation.

We therefore get from impressions to sensations only through representations of objects. The distinction between im-

pressions and sensations is important to Kant, because empirical reproducibility entails generality: one cannot associate a present empirical representation with a past representation unless one is capable of abstraction. Abstraction, on the other hand, presupposes composites, and reproducibility therefore presupposes the ability to represent a manifold in one representation. In other words, reproducibility presupposes consciousness (but not self-consciousness). Sensations and appearances can be empirically reproduced, impressions cannot.

We shall see later how empirical reproducibility is relevant to transcendental philosophy. Here it will suffice to understand that cognition proper is directed at the object of apprehension, and that this object is in itself a pure intuition.

Pure intuitions and pure concepts thus have a parallel function of providing the form of representation in cognition. Representing an object and thinking an object depend on pure intuitions and pure concepts respectively:

Thus pure intuition contains merely the form under which something is intuited, and pure concept only the form of thinking of an object in general. Only pure intuitions or concepts alone are possible *a priori*, empirical ones only *a posteriori*.¹⁸³

It is in pure *a priori* representations that Kant's interest lies, and pure representations contain merely the form of cognition. There has been an important development in the first paragraph of the introduction. We now know that the appearances we represent in our inner sense are not empirical intuitions but pure intuitions. They are pure intuitions, which *contain* only the form *under* which *something* can be represented. I emphasize the three words here, because they are essential in our task of understand-

¹⁸³ A 50–51 / B 74–75.

ing how a transcendental deduction can prove that the categories – pure concepts – can be valid for everything that can come before our senses. The answer depends on the correct understanding of what our appearances contain. In other words, for the purpose of understanding the Transcendental Deductions, we need to understand correctly the nature of the pure act of representing something. It is also noteworthy that it is said to be under the form contained in pure intuitions that something is represented, because nothing can be represented under the forms of our senses, i.e. time and space. What time and space contain is represented in time and space, not under them.

In the second paragraph Kant turns our attention to the origin of cognition:

If we call the *receptivity* of our mind to receive representations insofar as it is affected in some way *sensibility*, then on the contrary the faculty for bringing forth representations itself, or the *spontaneity* of cognition, is the *understanding*.¹⁸⁴

We are now moving to the metaphysical distinction between sensibility and understanding. I already noted above that neither the logical nor the metaphysical distinction reveals the true nature of sensibility and understanding, which concerns origin and content. This is also manifested in the formulation of Kant's statement: *if* we call our receptivity sensibility, *then* the spontaneity is the understanding. Kant will now guide the reader to the science of the spontaneity of our mind. This science has both a metaphysical and a transcendental strand, and the latter will reveal the true nature of the distinction between sensibility and understanding.

First Kant states that our cognition (in the strict sense of the word, as it is logic, that we are dealing with here) cannot be

¹⁸⁴ A 51 / B 75.

mere thought but necessarily involves both intuitions and affection on the one hand, and concepts and spontaneity on the other:

It comes along with our nature that *intuition* can never be other than *sensible*, i.e., that it contains only the way in which we are affected by objects. The faculty for *thinking* of objects of sensible intuition, on the contrary, is the *understanding*. Neither of these properties is to be preferred to the other. Without sensibility no object would be given to us, and without understanding none would be thought. Thoughts without content are empty, intuitions without concepts are blind.

Sensibility and understanding are thus separate faculties that nevertheless must co-operate in cognition. In order to be able to understand their co-operation, we must investigate their rules:

It is just as necessary to make the mind's concepts sensible (i.e., to add an object to them in intuition) as it is to make its intuitions understandable (i.e., to bring them under concepts). Further, these two faculties or capacities cannot exchange their functions. The understanding is not capable of intuiting anything, and the senses are not capable of thinking anything. Only from their unification can cognition arise. But on this account one must not mix up their roles, rather one has great cause to separate them carefully from each other and distinguish them. Hence we distinguish the science of the rules of sensibility in general, i.e., aesthetic, from the science of the rules of the understanding in general, i.e., logic.¹⁸⁵

The science of the rules of the understanding, of course, is logic, and in transcendental logic we are interested in the form of thinking an object in general, i.e. in the content of pure concepts. After this paragraph Kant moves to consider the science of the rules of the understanding. There is no need to go through the

¹⁸⁵ A 51–52 / B 75–76.

remainder of the Introduction in detail, and I will here present only the main points.

Logic is first divided into general and particular logic. General logic abstracts from all content of cognition and considers only the form of thinking in general, whereas particular logic contains the rules for correctly thinking about a certain kind of objects.¹⁸⁶ Kant considers the possibility that there might be a distinction between pure and empirical thinking of objects. If there is such a distinction, then there is also a particular logic that concerns the pure thinking of objects:

In this case there would be a logic in which one did not abstract from all content of cognition; for that logic that contained merely the rules of the pure thinking of an object would exclude all those cognitions that were of empirical content. It would therefore concern the origin of our cognitions of objects insofar as that cannot be ascribed to the objects [...]¹⁸⁷

This particular logic would be called transcendental logic, because transcendental cognition is one by means of which we cognize that and how certain representations are applied or possible entirely *a priori*.¹⁸⁸ Transcendental logic would determine the origin, the domain, and the objective validity of pure *a priori* cognition of the understanding and reason.¹⁸⁹ This logic is divided into analytic and dialectic, of which the Transcendental Analytic “expounds the elements of the pure cognition of the understanding and the principles without which no object can be thought at all”.¹⁹⁰ Kant goes on to note that the Transcendental Analytic is

¹⁸⁶ A 52–55 / B 76–79.

¹⁸⁷ A 55–56 / B 80.

¹⁸⁸ A 56 / B 80.

¹⁸⁹ A 57 / B 81.

¹⁹⁰ A 62 / B 87.

the logic of truth. General logic cannot provide a general criterion of truth, because truth concerns the content of cognition, and general logic abstracts from all content of cognition.¹⁹¹ Whereas general logic considers only the form, in transcendental logic, form is not the concern, just as in the Transcendental Aesthetic it was not the form of pure intuition (which is the business of geometry and pure mechanics) but the origin and content of representations that was investigated. Transcendental aesthetic is the science of the *a priori* conditions of receptivity, transcendental analytic is the science of the *a priori* conditions of spontaneity. The Transcendental Analytic, then, investigates the origin and content of our pure *a priori* concepts of the understanding.

After this guide to the science of transcendental analytic Kant can proceed to the task of finding the categories.

3.2. The Logical Use of the Understanding

The key to finding the pure *a priori* concepts of the understanding and proving their objective reality and validity is the analysis of mental activity. Up to this point discussion on mental activity in cognition has been limited and Kant has concentrated on the logical distinction between sensibility and understanding. In the Transcendental Aesthetic mental activity was not analysed at all. Although apprehension necessarily involves mental action in Kant, the proper place to analyse it was not in the Aesthetic, as it does not deal with perceptual awareness but with the *a priori* conditions of receptivity, so in that part of the *Critique* it was merely noted that time is the form of inner sense. From this fact it is evident that the awareness of our own mental activity must have some connection with time (note that this view is the only significant new development in the Aesthetic as compared to the

¹⁹¹ A 58–59 / B 83.

Dissertation). Tetens did indeed start his own analysis of mental activity from perception and proceeded from there to concepts, judgements and inferences, but his analysis is "subjective and empirical" whereas Kant's is "objective and transcendental", as Kant puts it in one of his reflections.¹⁹² If an analysis of mental activity is to provide an answer to the question regarding the relation between pure *a priori* concepts and the objects of sensibility, then we should start this analysis from the understanding, not from sensibility.

The place to start is the list of our basic concepts. The Analytic aims at finding all pure elementary concepts of the understanding, and the Analytic of Concepts is an analysis of the faculty of understanding itself.¹⁹³ This Analytic will therefore reveal the true nature of the distinction between sensibility and understanding, and this cannot be achieved by distinguishing between receptivity of impressions and spontaneity of concepts. It concerns origin and content. Kant states the aim of this analysis in the following:

We will therefore pursue the pure concepts into their first seeds and predispositions in the human understanding, where they lie ready, until with the opportunity of experience they are finally developed and exhibited in their clarity by the very same understanding, liberated from the empirical conditions attaching to them.¹⁹⁴

In this prospectus, it is hinted that just as time and space, the categories too are acquired concepts, so in this respect Kant's position has not changed from the *Dissertation*. The first seeds and predispositions (*Keime und Anlagen*) of these concepts lie ready in the human understanding, (we may compare this with the

¹⁹² Reflection 4901, Ak. 18:23.

¹⁹³ A 64–65 / B 89–90.

¹⁹⁴ A 66 / B 91.

remark that the form of the appearances “must all lie ready for it in the mind *a priori*”) ¹⁹⁵ so that the very same understanding can develop them and exhibit them in their clarity. Just as the first seeds of our representations of space and time, namely the forms of outer and inner sense, are not yet representations *of* space and time, let alone concepts of space and time, the first seeds of the categories are not concepts. The concepts will have to be acquired on the occasion of experience.

However, mere observation of these concepts arising on the occasion of experience is not the method of transcendental philosophy. It will rather have to seek its concepts in accordance with a principle, and the key to fulfilling this task is the absolute unity of the understanding. ¹⁹⁶ Here again Kant can expect his reader to agree. As I have noted, according to Wolff the soul is a simple substance, so the claim that the understanding, a faculty of the soul, is an absolute unity, would hardly raise objections by the Wolffians.

Kant begins the Transcendental Analytic by considering the logical use of the understanding. He says that until now he has explained the understanding only negatively as a non-sensible faculty. And as there can be no human intuition that would be independent of sensibility, the understanding is not a faculty of intuition. The conclusion then is that the cognition of human understanding is cognition through concepts. Now, Kant says that whereas sensible intuition rests on affections, concepts depend on functions, and by a function Kant understands “the unity of the action of ordering different representations under a common one.” ¹⁹⁷ Concepts are thereby contrasted with intuitions in regard to their ground. Concepts have their ground on the spontaneity of thinking; sensible intuitions have theirs on the receptivity of impressions. Through an analysis of this ground of spontaneity Kant

¹⁹⁵ A 20 / B 34.

¹⁹⁶ A 66–67 / B 91–92.

¹⁹⁷ A 68 / B 93.

will now argue that we are able to find the categories according to a principle, so that we can be certain that these concepts, and these alone, are the basic concepts of the pure understanding. This is what he calls a *Leitfaden* to the discovery of all pure concepts of the understanding.¹⁹⁸ Let us now analyse this argument.

Kant begins his argument by stating that the only use of concepts is the use of judging by means of them, which is, of course, the view of logic, where judgements are formed by combining concepts, and inferences are made by combining judgements. Next, he states that both concepts and judgements are mediate representations of objects; only intuitions can be immediately related to their objects. Judgements and concepts are therefore representations of representations. In order to understand why this is brought up we need to remind ourselves that we are now dealing with transcendental logic. General logic abstracts from all relation of cognition to its object and considers only the logical form in the relation of cognitions to one another, but in transcendental logic the focus is on the origin and content of cognition. Transcendental logic concerns “the origin of our cognitions of objects insofar as that cannot be ascribed to the objects”.¹⁹⁹ In regard to this origin we must consider the manner in which cognition refers to its object, and in concepts and judgements this reference is mediate. This manner of reference can be put as follows:

In every judgment there is a concept that holds of many, and that among this many also comprehends a given representation, which is then related immediately to the object.²⁰⁰

What Kant has in mind here is based on the distinction between what Antoine Arnauld and Pierre Nicole called the com-

¹⁹⁸ The argument is stated in A 68–69 / B 93–94.

¹⁹⁹ A 55–56 / B 80.

²⁰⁰ A 68 / B 93. “Comprehends” is a translation of “begreift”.

prehension and extension of a universal idea. The comprehension of an idea consists in “the attributes that it contains in itself, and that cannot be removed without destroying the idea.”²⁰¹ The comprehension of the idea of a triangle, for example, contains extension, shape, three lines etc. To the extension of an idea, on the other hand, belong “the subjects to which this idea applies.”²⁰² For example, the idea of a triangle in general has under its extension all the different species of triangles. In *The Jäsche Logic* Kant refers to this distinction by distinguishing between the content and the extension of concepts:

Every concept, *as partial concept*, is contained in the representation of things; *as ground of cognition, i.e., as mark*, these things are contained *under* it. In the former respect every concept has a *content*, in the other an *extension*.²⁰³

It is the extension of a concept, i.e., concept as ground of cognition that will interest us here. Kant elaborates this further in *The Jäsche Logic*:

As one says of a *ground* in general that it contains the *consequence* under itself, so can one also say of the concept that as *ground of cognition* it contains all those things under itself from which it has been abstracted, e.g., the concept of metal contains under itself gold, silver, copper, etc. For since every concept, as a universally valid representation, contains that which is common to several representations of various things, all these things, which are to this extent contained under it, can be represented through it.²⁰⁴

²⁰¹ Arnould and Nicole, *Logic or the Art of Thinking*, 39–40.

²⁰² *Ibid.*

²⁰³ Ak. 9: 95, § 7.

²⁰⁴ Ak. 9: 96, § 8, note.

Now, Kant argues that all judgements are functions of unity among our representations: “instead of an immediate representation a higher one, which comprehends this and other representations under itself, is used for the cognition of the object, and many possible cognitions are thereby drawn together into one.”²⁰⁵ Kant’s example is the judgement “All bodies are divisible.” The concept of divisible is related to other concepts, but in this judgement it is particularly related to the concept of body (it is stated that the concept of divisible contains the concept of body under it). The concept of body, in turn, is related to “certain appearances that come before us” (these appearances are under the concept of body).²⁰⁶ The judgement is, therefore, a representation of a representation.

Now, in forming a judgement we have to perform an act in which we bring unity to different representations, in our example to the concepts of divisible and body. This, however, can only be done if we have the material ready for such an act. The concept of body is in itself a unity, and this unity has to be brought to this representation through an act in the same manner as we bring unity to the judgement. Both concepts and judgements thus rest on functions of the understanding.

On the other hand, all acts of the understanding can be reduced to judging. For consider the concept of body in the above example. Kant notes that as predicates of possible judgements, concepts “are related to some representation of a still undetermined object.”²⁰⁷ The concept of body is a concept “only because other representations are contained under it by means of which it can be related to objects.”²⁰⁸ The concept of body is therefore a predicate for a possible judgement, e.g., “Every metal is a body.” Obviously, the same reasoning applies here as above: both the

²⁰⁵ A 69 / B 94.

²⁰⁶ Ibid.

²⁰⁷ Ibid.

²⁰⁸ Ibid.

possible judgement and the concept of metal require a function of the understanding. The understanding can therefore be represented as a faculty for judging, and all functions of the understanding can be found if one can find all functions of unity in judgements.

We may now compare Kant's conclusion with Tetens' view on mental action. Tetens began his analysis of cognitive action from perception and concluded that all higher cognitive acts can be reduced to the act from which perception arises. Now we see that also Kant thought that a reduction of cognitive acts is possible, but his starting-point for this reduction is in the understanding and in its ability to form judgements. As he thinks that general logic has already advanced to such a high level of perfection, he thinks that he is in a position to give an exhaustive list of logical functions in judgements, through which then the functions of the understanding can be represented.

3.3. Subsumption and the Categories

I will omit discussion on § 9,²⁰⁹ where Kant presents the table of judgements. My interest here lies more in the structure of Kant's argumentation than in the details, so I will present neither the table of judgements nor that of the categories. What matters to us at the present context is not so much what the categories are but how they can be found.

Now, Kant notes that whereas in general logic one abstracts from all content, in transcendental logic we are concerned with the relation of the representation to its object. In other words, we must take into account that at some point our mediate representations must have an immediate relation to an object. The question then arises: How does one subsume objects under con-

²⁰⁹ I find it convenient to use the numbering in referring to individual sections, although they are numbered only in the B edition.

cepts? How do I form a judgement that, e.g., that pen on top of my copy of the *Kritik der reinen Vernunft* is black? The pen is an appearance and appearances are intuitions, not concepts. Kant thinks that the answer to this question will reveal a connection between the categories and the form of judgement.

In order to solve the problem of subsumption, Kant will have to answer two questions. The first of these questions is: what is given to thought, i.e. what is the content of the appearances? The second question is: what is the content of our concepts? As he is approaching the problem from the side of the understanding, it is the latter of these questions that Kant will answer first. However, I will, perhaps a bit annoyingly, keep the issue of the content of the appearances alive by reminding the reader of it now and then. I will do so because it is vitally important to understand correctly what is said in section 10, and because I think that Kant expected his reader to keep the issue in mind.

The section begins as follows:

As has already been frequently said, general logic abstracts from all content of cognition, and expects that representations will be given to it from elsewhere, wherever this may be, in order to transform them into concepts analytically. Transcendental logic, on the contrary, has a manifold of sensibility that lies before it *a priori*, which the transcendental aesthetic has offered to it, in order to provide the pure concepts of the understanding with matter, without which they would be without any content, thus completely empty.²¹⁰

In general logic we abstract from the content of representations but in transcendental logic we deal with the content of our pure concepts. Based on what Kant has said so far, I concluded above that the apprehension of an appearance requires an act and that although this act must use empirical matter, representing an

²¹⁰ A 76–77 / B 102.

appearance rests on acting on pure intuition. In the above quote Kant says that transcendental logic has a “manifold of sensibility that lies before it *a priori*”. This pure *a priori* manifold is what must be acted on in order for us to be able to represent an appearance. But again we must be patient and postpone our discussion on this act. At this point we are not yet interested in what is given to thought through sensibility – and how it is given – but in the content of the pure concepts of the understanding.

These concepts would be without any content were it not for the pure manifold of sensibility, but the mind must act on the pure manifold in order to cognize an object:

Now space and time contain a manifold of pure *a priori* intuition, but belong nevertheless among the conditions of the receptivity of the mind, under which alone it can receive representations of objects, and thus they must always also affect the concept of these objects. Only the spontaneity of our thought requires that this manifold first be gone through, taken up, and combined in a certain way in order for a cognition to be made out of it. I call this action synthesis.²¹¹

It is here that Kant first takes spontaneity into scrutiny, and the spontaneity required for cognition is termed synthesis. Synthesis will be dealt with in greater detail at a later stage, but here its introduction serves the purpose of discovering the link between the function of the understanding in forming judgements on the one hand, and in relating concepts to objects on the other. In the second paragraph of § 10 Kant will explain, in an introductory manner, *what* synthesis is.

Synthesis is first defined in general terms:

By *synthesis* in the most general sense, however, I understand the action of putting different representations together with

²¹¹ A 76–77 / B 102.

each other and comprehending their manifoldness in one cognition.²¹²

As I noted in the Introduction, in the Leibnizian-Wolffian philosophy perceptions are representations of composites in the simple, and Wolff thought that even our sensations are of this nature.²¹³ Here Kant defines synthesis in general as that act through which a manifold of representations is put together and comprehended in one cognition. We have learned earlier that appearances are represented in inner sense and that all cognition thus necessarily involves an act. We have also learned that the understanding through its concepts represents a manifold in one cognition. Now it is said that the act through which a manifold is represented in one cognition is synthesis. This statement is expressed in very abstract terms, and based on what Kant has said so far, his reader would, I think, be inclined to think that like Wolff, Kant is making a general statement that cognition in the broad sense necessarily involves synthesis. Without synthesis cognition would be without content. We may here also note that synthesis, being a mental act, affects inner sense, and our consciousness of the manifold is thus represented in inner sense.

Now, the manifold that gets to be represented in one cognition need not be empirical:

Such a synthesis is *pure* if the manifold is given not empirically but *a priori* (as is that in space and time).

Pure synthesis can be taken either in the broad or strict sense. Consider my example of the gecko: it is obvious that in perceiving the gecko, the representation of its shape requires a pure synthesis, because in it a pure manifold of space is repre-

²¹² A 77 / B 103.

²¹³ Wolff, *Psychologia rationalis*, § 83.

sented in one cognition. But again, here the interest lies not in the appearances and their content but in the content of our concepts, and in particular in the content of the pure concepts of the understanding. Thus, although representing an appearance requires a pure synthesis, we now concentrate on the pure synthesis required for concepts.

Next Kant explains that the content of concepts must originate from synthesis:

Prior to all analysis of our representations these must first be given, and no concepts can arise analytically as far as *the content is concerned*. The synthesis of a manifold, however, (whether it be given empirically or *a priori*) first brings forth a cognition, which to be sure may initially still be raw and confused, and thus in need of analysis; yet the synthesis alone is that which properly collects the elements for cognitions and unifies them into a certain content; it is therefore the first thing to which we have to attend if we wish to judge about the first origin of our cognition.

The origin of our pure concepts of the understanding therefore lies in pure synthesis. As synthesis is mental action, this origin has to do with our mental faculties, and although the origin as such is not yet our concern, Kant will have to make a preliminary distinction concerning the origin of our cognition:

Synthesis in general is, as we shall subsequently see, the mere effect of the imagination, of a blind though indispensable function of the soul, without which we would have no cognition at all, but of which we are seldom even conscious. Yet to bring this synthesis *to concepts* is a function of the understanding, and by means of which it first provides cognition in the proper sense.²¹⁴

²¹⁴ A 77–78 / B 103.

Here Kant makes the distinction between the broad and narrow sense of the word ‘cognition’, which shows that he does indeed use the term in a similar way than Wolff does.²¹⁵ It also shows that synthesis in general does, as I have suggested, have in its scope mere perceptual awareness. Synthesis in general is said to be the mere effect of the imagination, and without the synthesis of the imagination, as we have concluded, there would be no cognition at all – no representation of objects. Accordingly, the understanding is not involved in the synthesis required for representing appearances. It is only the job of bringing this synthesis to concepts that is left to the understanding, and it provides cognition in the proper sense.

Kant thinks that by discovering a link between the logical function of the understanding in judgements and the function in connecting our intuition with thought, we can find the categories in accordance with a principle. His argument for this is brief, and he presents it before any painstaking analysis of the different faculties of the mind. Presumably then, not much will be needed for understanding his point. Let us, then, first consider what has been said so far: First of all, the Transcendental Aesthetic has shown that time and space are *a priori* intuitions and that although we are affected by objects outside us through our receptivity, this receptivity alone does not provide us with representations of objects. Rather, the mind must be active in representing appearances in order to be able to represent their spatial and temporal characteristics. Kant has criticized Wolff for considering the distinction between sensibility and understanding as merely logical. In his view, it is transcendental and does not concern merely the form of distinctness and indistinctness. On the other hand, Kant has not given us any reason to think that he does not subscribe to the standard view according to which sensibility gives us representations of objects through an act, and according to which the under-

²¹⁵ On Wolff’s use of the term, see *Psychologia empirica*, § 52.

standing is the ability to think these objects through apperception. On the contrary, when we look closely on what Kant says, we see that although representing an appearance does indeed require a pure synthesis, this synthesis is not a synthesis of the understanding. So when we are now about to see how he thinks that the understanding can relate its thought to objects of sensibility, we should assume that he thinks that the understanding has empirical objects given independently of any functions of the understanding through a synthesis of the imagination. In fact, Kant makes a distinction between synthesis in general, which is the mere effect of the imagination, and what he calls bringing this synthesis to concepts, which pertains to the understanding. By means of the latter, he says, this synthesis first provides cognition in the proper sense. We may thus safely conclude that the synthesis required for perceptual awareness is a mere effect of the imagination, and that thinking the appearances requires that this synthesis is brought to concepts. If the synthesis were not brought to concepts, the concepts, as mediate representations, could never refer to the objects of sensibility.

Kant has now given us the necessary introduction to the *Metaphysical Deduction*. We have learned that the action of synthesis is a requirement of all cognition. Synthesis has been divided into empirical and pure synthesis. Our interest lies in pure synthesis. As to the origin of synthesis it has been said that synthesis in general is the mere effect of the imagination. However, we are currently interested in the synthesis which brings content to our concepts. In particular we are interested in the origin of the content of our pure concepts, and Kant has said that bringing synthesis to concepts is the work of the understanding. We should thus expect that pure synthesis of the imagination gives pure concepts their content but cannot as such yield those concepts. Pure concepts require that the pure synthesis of imagination is brought to concepts, and this is the work of the understanding.

We should thus investigate how the understanding does bring pure synthesis to concepts:

*Now pure synthesis, generally represented, yields the pure concept of the understanding.*²¹⁶

We have seen that the ability to represent appearances requires a pure synthesis, but this synthesis is not a synthesis generally represented. It is a pure synthesis of some particular *a priori* manifold. When we abstract from that manifold and represent the synthesis itself, we have a general representation of a pure synthesis, hence a concept. Now we need to consider the nature of this generally represented pure synthesis:

By this synthesis, however, I understand that which rests on a ground of synthetic unity *a priori*; thus our counting (as is especially noticeable in the case of large numbers) is a *synthesis in accordance with concepts*, since it takes place in accordance with a common ground of unity (e.g., the decad). Under this concept, therefore, the unity in the synthesis of the manifold becomes necessary.²¹⁷

Kant uses counting as an example, and indeed, e.g., my thought that Kant died at the age of 79 presupposes a synthesis of units of ten. The unity in the unit of ten is an *a priori* synthetic unity and my thought would not be possible without this pure concept (the concept of number belongs to the category of allness).

Let me try to illustrate with an example what Kant tries to say. Suppose that I discover small holes in the ground, say 20 of them, and that I see an oak tree nearby with acorns under it. Sup-

²¹⁶ A 78 / B 104.

²¹⁷ *Ibid.*, translation modified.

pose further that I want to drop one acorn in each hole. If I want to pick up as many acorns as there are holes in the ground I need to think. Instinct could drive me or an animal of some other species to pick acorns and drop one in each hole, but it would be impossible to count the number of the holes and get as many acorns without thinking, for I can see 20 acorns without thinking, but I cannot intuit how many there are exactly – I cannot intuit their number. If there were 3 or 4 holes I, or some other animal, might succeed in the task without counting (without self-conscious *a priori* synthesis, that is), but not with 20 acorns. In mere intuition I could not even differentiate between the possible perceptions of 21 and 20 acorns. Now, if I want to count the number of the acorns, what do I do? I consciously add the perceived units (the acorns) one by one and order them in my thought to units of ten. This act, however, presupposes a pure concept of number, so this concept is the ground of the unity of the *a priori* synthesis involved. It is important to understand the difference between the two kinds of pure syntheses. According to Kant, the appearances, i.e. the acorns, are products of synthesis, and my representation of the acorns presupposes a synthesis of an *a priori* manifold, because they are spatiotemporal objects. Representing them thus presupposes a pure synthesis in time and space, but my thought that there are 20 of them requires a new synthesis that presupposes the concept of number.

I think we are now in a position to understand what Kant means by bringing the synthesis of imagination to concepts. Consider the above example. The act of counting does not affect the empirical intuition through which the appearances are represented, and it leaves these appearances unaltered. In other words, my perceptual awareness remains the same when I count the acorns. Instead, in the act of counting I take the appearances, which are modifications of the mind, and form a new representation by means of a representation of the synthetic unity of number, thus by means of a pure concept. The perception of 20 acorns is not a

representation of these acorns *as* 20 acorns. The latter is only possible as a thought and it requires a pure synthesis of imagination, when I consciously add together the acorns in my thought, one by one. But this thought also requires a pure concept of number, which provides the ground of unity to the synthesis, and it presupposes that the empirical intuition is brought to concepts by bringing the synthesis of imagination to concepts.

In the example of perceiving the gecko we saw that perceiving an appearance depends on a pure synthesis through which we grasp the shape of the object. The appearance is a representation of a manifold in one representation. Each acorn is likewise a representation of a manifold in one representation, and I can perceive their multitude in one representation. These representations require a pure synthesis without which I would perceive nothing: I would merely have impressions in space through outer sense without any objects and without any cognition. When I exercise the pure synthesis I represent appearances in inner sense and my sensibility is thus affected by my action, but the empirical matter is nowise affected by it. Through mere intuiting, however, I could never effect a representation of 20 acorns. Thus, those 20 appearances must now be gone through, taken up, and combined in a certain way in order to make that cognition of them, as Kant will later describe the process. This synthesis is likewise pure but it does not make use of the pure manifold of space in the way the pure synthesis required for representing appearances does. This is evident from the difference between representing the multitude of (20) acorns in mere intuition and representing 20 acorns in thought. The synthesis in the latter uses the appearances but it yields something that the mere synthesis of appearances in space could not, and it consequently is a different kind of act.

The difference between these syntheses is that the synthesis of thought rests on a ground of some synthetic unity. The number ten is a pure concept and a synthetic unity. When I represent two units of ten, this representation rests on the *a priori*

ground of the synthetic unity of ten. This synthetic unity is a pure synthesis generally represented and it gives us the pure concept of the number ten. Under this concept, then, the unity in the synthesis of the manifold becomes necessary. The difference between a pure synthesis (of imagination) in intuition on the one hand and the pure synthesis in thought on the other is that only the latter presupposes a synthesis generally represented. The former may rest on *a priori* synthetic unities, as we can see from the example of the intuition of a multitude of acorns. Representing an acorn presupposes an *a priori* synthetic unity, because without the singular representation of a pure manifold of space I could not represent an acorn (as was illustrated in the case of the gecko).²¹⁸ However, pure synthesis in intuition does not rest on a ground of synthetic unity *a priori*, because it is not a synthesis generally represented. It is only under a pure concept that the unity in the synthesis of the manifold becomes necessary. The representation of 20 acorns necessarily involves a pure synthesis in which two units of ten are added together. This synthesis is not a blind synthesis: it not only effects a unity of representation but also presupposes a pure synthetic unity. When I see a bunch of acorns and want to find out how many there are, I take as the ground of my counting the pure synthetic unity (of ten), without which my counting would be impossible. By merely adding (blindly) one acorn to another I would not find out the number of them.

Now we can perhaps understand more clearly the difference between the empirical intuition and its object. When I count acorns my counting is occasioned by the empirical data. The counting itself is a pure synthesis and the acorns provide the empirical matter to which I ascribe my thought of 20 units. Likewise, when I represent an acorn, the pure synthesis is occasioned by the

²¹⁸ Outer affection cannot produce this appearance. When I pick up the acorn it moves in space, and my perception of this event is a representation of the movement of an acorn-shaped object. In other words, it represents in time a change in the location of that synthetic unity.

sensations I have. The object itself contains something that corresponds to my sensations and I ascribe my sensations to this object (without sensation the pure synthesis would be empty, and without the acorns, my thought of 20 units would be empty). I see brown acorns but the acorns themselves are not brown, and however clear and distinct my sensation might be, it never could produce a representation of an acorn.

We have thus advanced from synthesis in general to pure synthesis, and from pure synthesis to pure synthesis generally represented. Now we must look into what the role of pure concepts in cognition. This is discussed in the next paragraph:

Different representations are brought *under* one concept analytically (a business treated by general logic). Transcendental logic, however, teaches how to bring not the representations but the *pure synthesis* of representations *to* concepts.²¹⁹

Kant puts emphasis on the words *unter* in the former sentence, and *auf* in the latter. There are thus two contrasts Kant wants to communicate: The first is that unlike in general logic, in transcendental logic we do not deal with the relation of representations and concepts but with the pure synthesis of representations and concepts. The second is that unlike in general logic, in transcendental logic we bring something to concepts, not under one concept.

Unfortunately, Guyer and Wood translate both *unter* and *auf* to ‘under’, which destroys Kant’s message. When we bring something *to* a concept, the concept will contain that something *in* it, not under it. As is noted in *Jäsche Logic*, the more a concept contains under it, the less it contains in itself, and conversely.²²⁰ Consequently, if the pure concepts contain in themselves only the

²¹⁹ A 78 / B 104, translation modified.

²²⁰ Ak. 9:95, § 7.

pure synthesis generally represented, much will be contained under them. This we see in the following passage:

The first thing that must be given to us *a priori* for the cognition of all objects, is the *manifold* of pure intuition; the *synthesis* of this manifold by means of the imagination is the second thing, but it still does not yield cognition.²²¹

What Kant means by this is that the joint sphere of our pure concepts is the whole of possible objects of cognition, and we are thus seeking the *a priori* requirements of cognition of all objects. And as it is logic we are here dealing with, 'cognition' refers to cognition in the proper sense. The manifold of pure intuition and its synthesis are sufficient *a priori* conditions of cognition in the broad sense, and for this we need receptivity and imagination, but the understanding is needed for cognition of objects in the proper sense.

We thus have two of the requirements for cognition in the proper sense in place. Sense provides us with the pure manifold, and imagination effects synthesis. Kant told us above that pure synthesis generally represented yields a pure concept under which unity in the synthesis of the manifold becomes necessary.²²² This leads us to the third *a priori* requirement for the cognition of all objects:

The concepts that give pure synthesis *unity*, and that consist solely in the representation of this necessary synthetic unity, are the third thing necessary for cognition of an object that comes before us, and they depend on the understanding.²²³

²²¹ A 78–79 / B 104.

²²² According to the translation by Guyer and Wood synthesis (not unity in the synthesis) becomes necessary.

²²³ A 79 / B 104.

For cognition in the proper sense, we need a unity of synthesis that the act itself produces. In other words, in order to think an appearance, we need a pure concept which contains a necessary synthetic unity. Now the question becomes, how does the understanding give unity to pure synthesis? The key to answering this question is the unity of the understanding:

The same function that gives unity to the different representations *in a judgement* also gives unity to the mere synthesis of different representations *in an intuition*, which, expressed generally, is called the pure concept of the understanding.²²⁴

It is based on an analytical unity that the extension of the concept of body is included in the extension of the concept of divisible, but the thought that all bodies are divisible involves something more, namely uniting these concepts in the form of judgement. This is evident from the fact that the judgements “All bodies are divisible” and “Something divisible is body” do not express the same thought, although they are based on the same analytical unity. This synthetic unity of a judgement, when it is expressed generally, is the pure concept of the understanding, in this case the relation being that of inherence and subsistence. Note that the same *a priori* synthesis is required also for the mere intuiting of an appearance. Thus, my intuition in which brown colour inheres in the appearance of an acorn, is produced through the same pure synthesis through which I think that all bodies are divisible. The inherence in mere intuition is not, of course, a product of a concept, but the concept expresses generally the synthesis through which it is represented.

We saw earlier that both concepts and judgments rest on functions of the understanding, and that all acts of the understand-

²²⁴ A 79 / B 104–105.

ing are reducible to judging. Consider again this passage from A 68/ B 93:

So in the judgement, e.g., “*All bodies are divisible*,” the concept of the divisible is related to various other concepts; among these, however, it is here particularly related to the concept of body, and this in turn is related to certain appearances that come before us.

Now we have learned that the subsumption of all appearances under concepts depends on the same function of the understanding on which the judgments we make depend. The unity by means of which certain appearances can be subsumed under the concept of body is the same unity by means of which we form the judgment “*All bodies are divisible*”. Subsumption of appearances under concepts thus depends on pure concepts of the understanding, which have now been traced back to judgments through a transcendental inquiry:

The same understanding, therefore, and indeed by means of the very same actions through which it brings the logical form of a judgement into concepts by means of the analytical unity, also brings a transcendental content into its representations by means of the synthetic unity of the manifold in intuition in general, on account of which they are called pure concepts of the understanding that pertain to objects *a priori*; this can never be accomplished by general logic.

In such a way there arise exactly as many pure concepts of the understanding, which apply to objects of intuition in general *a priori*, as there were logical functions of all possible judgments in the previous table; for the understanding is completely exhausted and its capacity entirely measured by these functions.²²⁵

²²⁵ A 79 / B 105.

In this way Kant has accomplished the first task of transcendental logic. He has sought the pure concepts of the understanding in accordance with a principle and found them. Tetens' challenge has thus been met. There is no longer any cause to ask whether it is just this list of concepts and no other that exhibits the basic concepts of the understanding. Kant has derived his list of pure concepts of the understanding according to a principle from the unity of the understanding, and he is confident that his list is exhaustive and correct. But this accomplishment is only the first step in Kant's transcendental logic. He still has to answer the question that Tetens puts forth immediately after the first one: are they real ideas, which correspond to objects? And even further: will the theory that is built upon them be transcendent, in other words will it be applicable to non-sensible beings?²²⁶ In Tetens' words, the first task is now the realization of these concepts, i.e. the task of showing that they correspond to real objects, and the second task is to determine the limits of their application.

Before we move on to these questions, I should try to clarify further what has been said in the Metaphysical Deduction and how it should be interpreted. First of all, an objection may be raised against my reading that Kant's claim that a function gives unity to mere synthesis of different representations in an intuition indicates that he does after all think that the categories are involved in mere perceptual awareness. But consider the example of counting acorns. The perceived acorns are indeed products of synthesis, but the act of counting requires *another* pure synthesis in intuition and this synthesis brings a transcendental content into the representations of the understanding. In fact, if Kant did mean that the function gives unity to the synthesis through which perceptual awareness becomes possible, there would be no need for a further proof of the objective reality of the categories. The mere fact that we do think about appearances would prove that the cat-

²²⁶ A 79 / B 105.

egories apply to them. But as one should expect, this is not the case, and as we shall shortly see, Kant thinks that “intuition by no means requires the functions of thinking.”²²⁷

In my opinion, the difficulties which talented commentators have encountered in reading Kant, stem from the fact that Kant has been viewed as writing to a faceless prosperity. It has not been realized that ideas play no role in the Analytic of Concepts. The Metaphysical Deduction becomes intelligible when we interpret Kant as thinking that perceptual awareness does not have intentional content and that we do not represent objects through ideas. Kant thinks that we act on the intuition given through our outer sense and sense this action through our inner sense. According to this conception, mental action can be directed at the object of representation, and the object can thus be used for representing another object. However, as I noted in section 1.3, the act by means of which we are acquainted with appearances does not contain direction toward an object. It is directed at the intuition containing a manifold of impressions and an *a priori* manifold of space. By means of the act, this intuition represents the appearance, which is a modification of inner sense. An act of the understanding can then be directed at the appearance. An act of synthesis is required for representing acorns, and another act of synthesis is required for thinking their number. Only the latter kind of synthesis has been the object of scrutiny in the Metaphysical Deduction, and in it Kant has concluded that in the act of thinking, the very same function that we use in judging gives the necessary unity to synthesis in intuition.

Thus, the Metaphysical Deduction is by no means a series of bald assertions that cannot be made intelligible without the Transcendental Deduction, as Allison claims.²²⁸ Nor is there a circularity in which the findings of the Transcendental Deduction

²²⁷ A 91 / B 123.

²²⁸ Allison, *Transcendental Idealism*, 123.

are presupposed in the Metaphysical Deduction, as Longuenesse thinks.²²⁹ It is quite the opposite. The Metaphysical Deduction is a carefully thought and well written piece of argument, in which our spontaneity is isolated (on account of which it may be called a metaphysical deduction) and then distinguished into synthesis of the imagination on the one hand, and synthesis of the understanding on the other. The latter synthesis is then taken into scrutiny and it is concluded that it requires concepts which consist solely in the representation of the necessary synthetic unity required for cognition in the proper sense.

The unity of the action that yields these concepts can then be traced back to judgments. This argument is based on the metaphysical distinction between receptivity and spontaneity, and it does not yet reveal the true nature of the understanding. Kant has not yet even mentioned apperception, which in the Transcendental Deduction is revealed to be the source of the unity, but there has not been any need for this either. Thus, the argument of the Metaphysical Deduction stands on its own, and it does not depend on the analysis that will be carried out in the Transcendental Deduction. The assumptions for the argument are first of all that cognition requires a unity of a manifold and secondly that ultimately the understanding is a unity. These assumptions are not hard to accept for an 18th century philosopher, and the third one, a new conception of sensibility, has been argued for earlier in the *Critique*. When these assumptions are understood, all that is needed is attention to detail, and the argument is fairly easy to follow.

²²⁹ Longuenesse, *Capacity to Judge*, 29.

4. FROM THE METAPHYSICAL DEDUCTION TO THE TRANSCENDENTAL DEDUCTION

4.1. Preliminary Considerations

An important thing to note concerning the Metaphysical Deduction is that it has left the question of the content of the appearances entirely open. When it was said that the function of the understanding gives unity to the synthesis of different representations in an intuition, it was not meant that by this the appearances are produced. Indeed, the application of this synthesis requires that there are appearances given to thought. The Metaphysical Deduction concerns the origin and content of the object of *thought*, not of the object of intuiting, and what Kant has shown in it is only that the categories are necessary for subsuming appearances under concepts. Therefore, although Kant has shown that the understanding necessarily uses the categories when it thinks about the appearances, it is obvious that the Metaphysical Deduction does not guarantee that the appearances themselves conform to the categories. It might as well be an illusion that the categories seem to apply to the appearances. The categories therefore need to be realized, i.e., Kant needs to show that they have real objects.

In other words, the question is *quid iuris*; do we have the right to apply the categories to appearances? It is a question of the legitimacy of their use. Kant calls that through which the question of the legitimacy of the use of concepts can be answered, their deduction, and states that the use of *a priori* concepts always requires such a deduction, because proofs from experience are not sufficient for the lawfulness of their use.²³⁰

²³⁰ A 84–85 / B 116–117.

Regarding the use of the concepts of space and time, a transcendental deduction was easy to achieve. Because objects can appear to us only by means of the pure forms of sensibility, space and time contain *a priori* the conditions of the possibility of objects as appearances, and the synthesis in them is thus objectively valid. The sensible, however, is independent of the intelligible, so things are more difficult regarding the categories:

The categories of the understanding, on the contrary, do not represent to us the conditions under which objects can be given in intuition at all, hence objects can indeed appear to us without necessarily having to be related to functions of the understanding, and therefore without the understanding containing their *a priori* conditions. Thus a difficulty is revealed here that we did not encounter in the field of sensibility, namely how *subjective conditions of thinking* should have *objective validity*, i.e., yield conditions of the possibility of all cognition of objects; for appearances can certainly be given in intuition without functions of the understanding.²³¹

I concluded earlier that Kant does subscribe to the standard view of cognitive action, according to which cognition in the proper sense requires two acts, intuiting and thinking. Here my interpretation of Kant's view on the role of the function of the understanding in cognition, which I offered in the previous chapter, is confirmed to be correct, for Kant says that “appearances can certainly be given in intuition without functions of the understanding”. Kant thinks that the function of the understanding is required only for cognition in the proper sense, in which it gives the necessary unity to pure synthesis through the pure concepts of the understanding. This is evident, because he admits that appearances do not require functions of the understanding although they do require a synthesis of a pure manifold. A function is the unity

²³¹ A 89–90 / B 122.

of the action in ordering different representations under a common one, and the categories are concepts that give unity to the pure synthesis, so Kant's position is that appearances are given in intuition without the use of the categories.

In the Metaphysical Deduction Kant showed us that all action of the understanding, even the act of subsuming appearances under concepts, can be traced back to the act of judging. However, this is not enough to show that the categories, which are necessary for subsumption, have possible objects. The concept of cause, for instance, could be “a mere fantasy of the brain”.²³² This concept expresses a necessary connection between appearances, and it cannot arise empirically, but nothing that the Metaphysical Deduction has taught us can assure us of the validity of the thought of necessary connection between appearances. Although the categories provide the synthesis with a necessary unity, the necessity they offer could be a merely subjective necessity.

Kant makes a distinction between an empirical and a transcendental deduction. A transcendental deduction is an explanation of the way in which concepts can relate to objects *a priori*. An empirical deduction, on the other hand, shows how a concept is acquired through experience and reflection on it. To seek an empirical deduction of the categories would be futile, because they have not borrowed anything from experience. Therefore, Kant concludes that if a deduction of these concepts is necessary, it must be transcendental.²³³

On the other hand, Kant does not deem empirical considerations to be unimportant. Although an empirical deduction would be impossible for the categories, an empirical investigation does have its merits even regarding the categories:

²³² A 91 / B 123.

²³³ A 85–86 / B 117–118.

Nevertheless, in the case of these concepts, as in the case of all cognition, we can search in experience, if not for the principle of their possibility, then for the occasional causes of their generation, where the impressions of the senses provide the first occasion for opening the entire power of cognition to them and for bringing about experience, which contains two very heterogeneous elements, namely a *matter* for cognition from the senses and a certain *form* for ordering it from the inner source of pure intuition and thinking, which, on the occasion of the former, are first brought into use and bring forth concepts. Such a tracing of the first endeavors of our power of cognition to ascend from individual perceptions to general concepts is without doubt of great utility, and the famous Locke is to be thanked for having first opened the way for this.²³⁴

The point Kant is making here is that the method used by those philosophers inspired by Locke (Tetens for instance) cannot provide an answer to the question of the objective reality of the basic concepts of the understanding. So regarding Tetens' own question of the realization of the basic concepts, we can conclude that his approach is doomed to fail. We should not, however, conclude that this makes his work unimportant. Indeed, Kant clearly thought that Tetens had made important discoveries that are even necessary for the deduction of the categories and that Tetens had provided the ground from which this deduction can be made, but the deduction itself needs to be transcendental and it cannot be carried through empirically.

What Kant has to do in a transcendental deduction is to explore the gulf between impressions and concepts. In the *Metaphysical Deduction* it was said that the imagination is what effects synthesis and that in thinking the understanding gives unity to this synthesis, from which arises concepts. Now Kant has to examine how the faculty of imagination effects synthesis and how the understanding gives unity to synthesis.

²³⁴ A 86 / B 118–119.

This will require an investigation which does not rely merely on observation, because through observation of the mind we can reveal only what appears through inner sense. In a transcendental deduction we therefore need to learn about the action of the faculties behind inner sense. As I mentioned earlier, Wolff thought that there is a single fundamental cognitive force that acts through various cognitive faculties. The faculties are for Wolff active potencies²³⁵ that explain why it is possible for the soul to perform certain actions, but in themselves the faculties do not provide a sufficient reason for the actuality of action. For the latter a force needs to be postulated.²³⁶ Now, sensibility and understanding are faculties, but it will turn out that they are not original faculties and that in transcendental logic we need to analyse these faculties further. Kant needs to look behind those faculties in order to show the objective validity of the categories, but he cannot do this in the same way Wolff had done. What Wolff had neglected was an inquiry into the origin and content of our representations. He had proceeded from the simplicity of the soul, which provided the basis for the unity of cognition. Kant, on the other hand, must approach the problem of unity from the side of cognition, and here we may benefit from taking a glance at Tetens' thoughts on faculties and cognitive forces. For also Tetens approached the problem of unity from the side of cognition, and although Tetens' method relied on observation, he did also make inferences from his observations. Tetens was well aware of the *a priori* element of cognition. From that element, Kant must continue to what is transcendental, and we may benefit from taking a look at what Tetens' position was.

²³⁵ Wolff, *Psychologia empirica*, § 29.

²³⁶ See Blackwell, "Christian Wolff's doctrine of the soul", 339–354 and 346.

4.2. *Tetens on Cognitive Forces*

In chapter 1 I gave an overview on Tetens' account of perceptual awareness. According to Tetens, feeling or sensing is the first requirement for cognition but it only gives us sensations that we can represent, nothing more. Through the faculty of representation, which is the second requirement, we represent those sensations by forming images, but in Tetens' theory the third requirement for cognition, the faculty of thinking, is inseparable from the faculty of representing in the sense that in forming a representation of an empirical object we have to make use of our ability to combine our perceptual data into a representation of the object. Only when all these three simple ingredients of the human cognitive power work together will cognition arise.

Tetens' analysis of the faculty of representation lists the same faculties that are included in Wolff's lower faculty of cognition: imagination, the power of feigning and memory. However, it is easy to see that for Tetens the faculty of thinking, Wolff's higher faculty of cognition, cannot be separated from the faculty of representation. In Wolff thinking arises from apperception through reflecting (i.e. comparing and distinguishing) on *perceptions* (i.e. consciousness of objects) which brings clarity to the manifold of representation. According to Tetens, by contrast, there would be no perceptions to be apperceived had the faculty of thinking not first combined the manifold of sensations into representational images. Thinking is, in fact, in his view already involved in perceiving. When we perceive something, there arises in us a thought of a relation between things, and the perceived object is distinguished from the rest of the sensible data. Perceiving is a form of judging and this separates it from mere feeling, which has as its object only the absolute in things. As the absolute can only be felt and represented, and the relative can only be thought, Tetens concludes that we will have to assume that per-

ceiving is an expression of a fundamental force, the force of thinking.

Wolff's conception of cognition thus needs refining. In Wolff cognition requires apperception and perception, the latter being consciousness of a given object. Apperception is dependent on perception and perception in turn on distinguishing. Tetens' point is that we would not be able to distinguish anything without the ability to combine sensations to general images because distinguishing involves a thought of a relation, and we cannot have a thought of a relation unless our mind itself has first combined the sensible data. This is because what we get from the senses alone is totally without relations. And if the mind cannot perceive relations, it can in fact perceive nothing at all. We therefore have to assume three separate fundamental cognitive forces: the force of feeling, the force of representing and the force of thinking. Not only is there a multiplicity of cognitive faculties but also a multiplicity of underlying forces. This at least is what we have to assume when we are conducting an inquiry into the origin of cognition – strictly speaking, Tetens is inclined to the view that there is a single fundamental cognitive force that acts in three different directions at varying intensity.²³⁷ What concerns us here is that we need these three simple ingredients to explain how cognition is possible. Cognition is first possible when all of these three fundamental forces act together: “[T]hen [the impressions] are *perceived* distinguished impressions, that is, impressions with which a thought connects through the force of thinking that they are specific changes for themselves and that they differ from each other.”²³⁸

²³⁷ Tetens, *Versuche*, 615.

²³⁸ ”dann sind es wahrgenommene unterschiedene Eindrücke, das ist, Eindrücke, mit denen sich durch die Denkkraft verbindet, dass sie besondere Veränderungen für sich, und von einander unterschieden sind.” Tetens, *Versuche*, 298.

According to Tetens, the force of thinking expresses itself in distinguishing, in perceiving, in relating things to other things and in judging and reasoning. He thinks that all higher acts of thinking can be explained through an analysis of perceiving. Having a thought that a branch is part of a whole tree, or that a house is next to a tower, or that the sun enlightens the day, requires not only having mere representations of these objects but having perceived, distinguished representations of them. In order to be able to think that the branch is part of the whole tree one must first distinguish the branch and the whole tree and then think of the relation between them.²³⁹ Perceiving can be analysed into two acts: into prominent exhibiting and into thinking of the distinguishing characteristic.²⁴⁰ Thinking, on the other hand, is a combination of relating and perceiving. When we think a relation, e.g. that two things are different from each other, we perceive the “*relation* itself, the distinguishing, comparing action of the soul”.²⁴¹ This applies to all relations, e.g. the relation of the causal connection, of a predicate to a subject or of coexistence. According to Tetens, a complete thought of a relation between two things contains the following three simple acts: 1. the differentiating of one of the representations, 2. the differentiating of the other representation, 3. the relating of these representations to each other.²⁴² All thinking is thus in the end perceiving.

However, there are expressions of these acts of thought even before any perception of objects. In fact, Tetens thinks that the first acts of thought are prior to all distinguishing of objects. As a thought of a relation is an *ens rationis* that is produced by a force of the soul through which it compares representations which occupy our mind, this action will have as an effect a change in the

²³⁹ Tetens, *Versuche*, 305.

²⁴⁰ Tetens, *Versuche*, 351.

²⁴¹ Tetens, *Versuche*, 354.

²⁴² Tetens, *Versuche*, 356.

soul that will leave an imprint on it.²⁴³ We can thus make the following distinction:

It is one thing to declare things to be identical or different from each other, and another thing to represent this thought, abstract from it, separate what is common to several relational thoughts and to pull out a general concept of this relational thought and of the relation itself.²⁴⁴

Every act of thought leaves an imprint on the soul that we can represent through inner sense, and these imprints can in turn become objects for thinking. In this way, the same acts of thought can occur at different levels. The first acts of thought, the “original” relational thoughts, occur at an unconscious level, but by renewing the same acts of thought at higher levels the mind can develop representations to a point where perception and, after that, apperception become possible. These original thoughts include what Kant calls *a priori* intuitions, namely time and space, as well as thoughts of the causal relation, the relation of a predicate to a subject and the relation of coexistence.²⁴⁵ However, these pre-perceptual thoughts are not concepts but acts whose effects we can feel. Through these acts arise representations of these acts, representations of relations, ideas of relations and finally concepts of relations.²⁴⁶ This view resembles Kant's theory of the epigenesis of reason, which I will discuss later.

²⁴³ Tetens, *Versuche*, 276.

²⁴⁴ ”Es ist ein anders, Dinge zuerst für einerlei erklären, oder sie unterscheiden; und ein anders ist es, sich diesen Gedanken wieder vorstellen, davon zu abstrahiren, das Gemeinschaftliche in mehrere Verhältnissgedanken absondern, und daraus den allgemeinen Begriff von dem Verhältnissgedanken, und von dem Verhältnisse selbst herausziehen.”

Tetens, *Versuche*, 277.

²⁴⁵ Tetens, *Versuche*, 304–305, 357–360.

²⁴⁶ Tetens, *Versuche*, 307–311.

4.3. Kant's Agreement and Disagreement with Tetens

We saw earlier that already in the *Inaugural Dissertation* Kant thought that the categories are acquired concepts, but in that text Kant did not – indeed he could not – explain exactly how they are acquired. It seems that Tetens' work helped him to explain this.

Tetens' answer is presented already in the *Speculativische Philosophie*. Leibniz had amended the famous dictum *nil est in intellectu, quod non ante fuerit in sensu* by adding: *excepto intellectu*.²⁴⁷ Tetens thought that there is no need for this amendment, because the concepts of the understanding have their origin in our inner sensations, through which we can feel our own acts of thought. Tetens makes this remark in the context of a discussion regarding time and space, and he suggests that the concept of space is drawn not from outer sensations through abstraction but from the act of sensing several things next to each other. According to Tetens, the concept of a space in general (*von einem Raum überhaupt*) is a universal concept whereas the concept of space as the whole of space is a singular idea. Time, in like manner, has its origin in the act of sensing, but unlike space, time has its matter in inner as well as in outer sensation.²⁴⁸ Tetens clearly was indebted to Kant's *Inaugural Dissertation* there, but it seems that now in the *Critique* Kant, in turn, is indebted to Tetens, for Tetens provides the link between inner sense and the pure *a priori* concepts – the concepts of space and time and the categories. Tetens had proposed that the basic concepts are concepts of any possible understanding. If this is true and if these concepts are acquired concepts, as Tetens thought they are, then we must conclude that the mind acts according to universal rules. These rules we can then bring to concepts and thus acquire concepts that reflect how

²⁴⁷ Tetens, *Speculativische Philosophie*, 54 note.

²⁴⁸ Tetens, *Speculativische Philosophie*, 54–55 note.

the mind thinks. Tetens' transcendent concepts could be described as concepts for thinking objects in general, for as we saw above, he thought that these concepts are valid both for the sensible and the intellectual.

Interestingly, however, we can see now that Kant's account of cognitive action differs substantially from Tetens' account in one crucial respect. If the basic concepts are acquired concepts and nevertheless necessary for thinking objects in general, then Kant must think that there is something fundamentally wrong in Tetens' conception of cognitive activity, for if there weren't, showing that the thinking of objects necessarily presupposes these concepts should at the same time be a sufficient deduction of them. Let us try if we can locate Tetens' error.

Tetens thought that all cognitive acts can be reduced to the act of perceiving, but Kant denies that this is the case. If showing that thinking necessarily presupposes pure *a priori* concepts is not a sufficient deduction of these concepts, then in Kant's terms either the pure manifold, its synthesis, or the unity of this synthesis differs in intuition and thought. There are thus three possible candidates for the location of Tetens' error. The pure manifold, however, clearly must be the same in intuition and thought: otherwise we could not think our intuitions. On the other hand, if the syntheses were to differ, it would seem to be impossible for the understanding to think the objects of sensibility, so ultimately only one potential candidate remains: the concepts that give the pure synthesis unity. Kant's view, then, seems to be (and this will be confirmed later) that the ground of unity in thinking is different from the ground of unity in intuition. Otherwise, since the categories are acquired concepts, the function of the understanding could be reduced to the *a priori* conditions of perception, as Tetens thought.

Now, what Kant has to show in the Transcendental Deduction is that despite this fundamental difference between the acts of intuiting and thinking, the objects of sensible intuition

“must accord with the conditions that the understanding requires for the synthetic unity of thinking”. In other words, Kant has to show that although the appearances are independent of the categories, they nevertheless must be such that the categories apply to them. That they do is not evident without a deduction:

For appearances could after all be so constituted that the understanding would not find them in accord with the conditions of its unity, and everything would then lie in such a confusion that, e.g., in the succession of appearances nothing would offer itself that would furnish a rule of synthesis and thus correspond to the concepts of cause and effect, so that this concept would therefore be entirely empty, nugatory, and without significance. Appearances would nonetheless offer objects to our intuition, for intuition by no means requires the functions of thinking.²⁴⁹

Kant insists that our experience of the regularity of appearances cannot prove the objective validity of the concept of cause and effect (or any of the other categories), because this concept “must either be grounded in the understanding completely *a priori* or else be entirely surrendered as a mere fantasy of the brain.”²⁵⁰ Appearances simply cannot provide a rule according to which the succession of appearances is necessary.

Kant and Tetens are both committed to the view that the act of representing an object produces the object of an empirical representation by combining (or synthesising) the non-relational matter given to us through our receptivity of impressions. This empirical object consists in a modification represented in the mind, and this modification, in turn, has to be acted on, if we are to think this object. Senses provide us with a manifold of representations but combining this manifold is a spontaneous action of

²⁴⁹ A 90–91 / B 123.

²⁵⁰ A 91 / B 123–124.

the mind without which no cognition could arise. This is a position Kant and Tetens were forced to take as they both wanted to avoid (empirical) idealism and scepticism. Tetens clearly considered Hume's sceptical challenge to be just as important and just as much in need of an answer as Kant did. And Tetens did indeed make an effort to answer Hume. The crux of his answer is that Hume did not take into account that in a causal relation we do consider the effect as depending upon the cause, and this is something that the mere association of ideas is insufficient to explain. The judgment of the understanding through which we declare objects as depending on other objects could not arise if the causal connection of ideas were nothing but a subjectively necessary association of the imagination.²⁵¹ In fact Tetens had already generalized Hume's problem: he thought that the causal connection is only an example of a relation between objects, and the general question is how the force of thinking can bring about relations between objects. For Kant the generalized question is a question of the possibility of synthetic *a priori* judgements.

Nevertheless, on the nature of the act of thought Kant disagrees with Tetens. According to Tetens, our thinking of objects arises when we distinguish ourselves from the objects we perceive. Kant thinks that this Wolffian conception of apperception must be altered, and now we must see how.

4.4. Transition to the Transcendental Deduction of the Categories

Kant is now ready to tackle the question that he was unable to answer in the *Dissertation*: how is the relation between a representation and its object possible? The answer is twofold:

²⁵¹ Tetens, *Versuche*, 316–317. For a more detailed discussion on Tetens' answer to Hume see Manfred Kühn's "Hume and Tetens".

There are only two possible cases in which synthetic representation and its objects can come together, necessarily relate to each other, and, as it were, meet each other: Either if the object alone makes the representation possible, or if the representation alone makes the object possible. If it is the first, then this relation is only empirical, and the representation is never possible *a priori*. And this is the case with appearances in respect of that in it which belongs to sensation. But if it is the second, then while the representation in itself (for we are not here talking about its causality by means of the will) does not produce its object as far as its *existence* is concerned, the representation is still determinant of the object *a priori* if it is possible through it alone to *cognize something as an object*.²⁵²

Sensation in itself is a subjective representation but it is a representation that cannot be produced by the mind itself; it is made possible by something outside the power of representation. But in the case of outer representing the subjective sensation can be used as the matter of a synthetic representation in producing an appearance. In this appearance its matter, that which belongs or corresponds to sensation, is made possible through an object (outside our power of representation) alone, and this in the representation (in the appearance) is related empirically to the object outside our power of representation.

However, in the Transcendental Deduction we are concerned with the relation that an *a priori* representation can have to an object, and this is only possible when the representation alone makes its object possible. In this case the representation makes its object possible in the sense that through it alone the cognition is possible. Now, cognition is possible under two conditions:

But there are two conditions under which alone the cognition of an object is possible: first, *intuition*, through which the object is given, but only as an appearance; second, *concept*,

²⁵² A 92 / B 124–125, translation modified.

through which an object is thought that corresponds to this intuition.²⁵³

An intriguing question is evoked by this remark: does Kant speak of one or two objects here? Both interpretations seem to be possible. Consider the first case, namely intuition. The appearance is made possible through a representation, which Kant calls an empirical intuition. This intuition has both a matter and a form. Its form is *a priori*, and it is the condition under which alone the cognition of the appearance is possible. This condition, as Kant notes, has been proved to “lie in the mind *a priori* as the ground of the form of objects.” In other words, the *a priori* form of an empirical intuition is the ground of the object of this empirical intuition, and this is how the *a priori* intuition makes possible the object of an empirical intuition, as an appearance.

But what about the second case? What does an *a priori* concept make possible? Kant says that through it “an object is thought that corresponds to this intuition”, but what does the word “intuition” here refer to? The only instance of this word in the preceding sentence denotes the intuition, through which the appearance is given, but if this were meant, the concept would make possible the appearance, and this would be in contradiction with the standard view of cognition to which Kant has clearly committed himself. In this case there would be only one object, the appearance, and both the *a priori* intuition and the *a priori* concept would be conditions under which this object is represented. This, however, cannot be what Kant means, because he thinks that intuition does not depend on the functions of the understanding.

It will be revealed shortly that Kant means by the word “intuition” the appearance. The appearance itself is an intuition, and through an *a priori* concept an object is thought that corresponds to the appearance. There are thus two objects: the appear-

²⁵³ A 92–93 / B 125, translation modified.

ance that is intuited, and an object that is thought. The latter object is not an intuition, but rather corresponds to the intuited appearance. Now Kant asks whether this object has an *a priori* condition, just as the appearance does:

The question now is whether *a priori* concepts do not also precede, as conditions under which alone something can be, if not intuited, nevertheless thought as object in general, for then all empirical cognition of objects is necessarily in accord with such concepts, since without their presupposition nothing is possible as *object of experience*.²⁵⁴

We saw earlier that our thinking of objects presupposes pure *a priori* concepts, but we also saw that this thinking does not affect the appearances we perceive. When I think that the heat in a room is caused by a hot oven, my thought does not alter anything in the appearances. Nevertheless, thinking does add something to these appearances, namely a connection that they do not have in mere intuition. It is true that even without the ability to think, I could be accustomed to connecting the heat of the room with a hot oven, but this would be mere association of appearances. That kind of connection would, of course, be useful to me, because through association I could learn to avoid touching the hot oven when I feel that the room is warm. However, this connection would be merely conscious, not self-conscious. It would not be thinking.

Suppose now that in my perceptual awareness the heat of the room has always occurred together with a hot oven, but that now the heat is due to some other factor. If I accidentally touched the oven, I would be surprised that it is cold. If I were a creature not endowed with an understanding, this occurrence would merely affect my faculty of imagination. If from now on the room would be warm without the oven being hot, I would cease to as-

²⁵⁴ A 93 / B 125–126.

sociate the heat of the room with a hot oven, but I would not be conscious of this change. However, since I do have the ability to think, and since I would expect the heat of the room to be caused by a hot oven, I would start wondering why the room was warm despite the oven being cold. Perhaps I would observe that the sun shines through the window or that a central heating system has been installed to the building. It is this kind of consciousness that Kant would call experience.

Experience is not a mere play of our representations; in experience *we* play with our representations. And now we have to ask, whether or not this play is mere fiction. In considering this question we need to remind ourselves that whereas the appearances we represent are mere intuitions, thinking of those objects involves both intuition and concept:

Now, however, all experience contains in addition to the intuition of the senses, through which something is given, a *concept* of an object that is given in intuition, or appears; hence concepts of objects in general lie at the ground of all experiential cognition as *a priori* conditions; consequently the objective validity of the categories, as *a priori* concepts, rests on the fact that through them alone is experience possible (as far as the form of thinking is concerned).²⁵⁵

In this quote Kant expresses the fundamental idea of the Transcendental Deduction: that there is a distinction between animal-like perception and human experience. To be able to understand this distinction correctly, we need to understand what kind of objects the appearances are. The appearances are objects of an empirical intuition. These objects are intuitions and they are given, although through an act of synthesis, to the mind as its modifications. They are thus pure intuitions and they require a pure manifold of sense and a pure synthesis of imagination. Expe-

²⁵⁵ A 93 / B 126.

rience, however, contains something more: “a *concept* of an object that is given in intuition, or appears”. It is useful to see the concept as an act – as something through which the appearance can be grasped – and what Kant means here can be expressed by the Latin verb *concipio* or the German *begreifen*: the act through which the intuitions are thought *as* objects. Kant's claim is that experience, in which the appearances are connected to each other, is only possible when we think the appearances through concepts of objects in general. What this means is that an object of experience is not an appearance. As we have already seen, it is through the appearance that the object of experience is represented, and this representing presupposes pure *a priori* concepts.

Kant is now in a position to state the principle according to which a transcendental deduction of all pure concepts (concepts of time and space and the pure concepts of the understanding) must be carried through:

The transcendental deduction of all *a priori* concepts therefore has a principle toward which the entire investigation must be directed, namely this: that they must be recognized as *a priori* conditions of the possibility of experiences (whether of the intuition or of the thinking).²⁵⁶

After this passage Kant points out that these concepts are therefore necessary for experience, and because of this the unfolding of the experience in which they are encountered is merely their illustration and not a deduction, for the unfolding would leave them contingent. Kant calls this necessary relation of the pure concepts to possible experience an original relation.²⁵⁷

The unfolding (*die Entwicklung*) Kant speaks of is what Tetens had done with our experience. It is thus, once again, pointed out that by using the empirical method, upon which Tetens

²⁵⁶ A 94 / B 126.

²⁵⁷ A 94 / B 126–127.

among others relied, a deduction of the categories is not possible. However, we are now about to see that Tetens' inquiry into the action of the mind in cognition provides Kant with a firm ground from which a transcendental inquiry into the sources of cognition can be carried through. Kant has no trouble accepting Tetens' thesis that our experience is something that can be unfolded. Experience presupposes given appearances, which in turn presuppose sensations. All of these presuppose mental action so that even sensations are not simply given to us. What is given to us as such is mental impressions. Tetens has done a great service to philosophy but his work is not enough to prove that the categories are objectively real concepts, even though we now have found those concepts in a systematic manner. We shall see that by making minor changes to Tetens' findings Kant is able to provide a transcendental deduction of them. In the Transcendental Aesthetic Kant was already able to prove that the concepts of space and time are conditions under which objects can appear, so these *a priori* concepts are objectively valid. Now he will make an effort to show that the categories are conditions under which objects can be thought.

In the A edition Kant ends this section with a paragraph that was omitted from the B edition. In this paragraph Kant says that there are "three original sources (capacities or faculties of the soul), which contain the conditions of the possibility of all experience, and cannot themselves be derived from any other faculty of the mind, namely *sense, imagination, and apperception*."²⁵⁸ Kant continues to note that each of these faculties have both an empirical and a transcendental use. The transcendental use is concerned solely with form and is possible *a priori*. Kant reminds us that the transcendental use of sense has been discussed in the Transcendental Aesthetic. From this we can see that that part of the *Critique* has a dual function. It has provided a transcendental deduc-

²⁵⁸ A 94 / B 127.

tion of the concepts of space and time, but it has also shown that our receptivity has an *a priori* form. Our faculty of sense has an empirical use which provides us with matter of cognition, but it also has a transcendental use, which grounds what Kant calls “the *synopsis* of the manifold *a priori* through sense”.²⁵⁹ What this means is that we are not able to receive the empirical matter in any other form than space (and time).

However, in the Transcendental Aesthetic cognitive action was not analysed at all. It is now time to try to understand the nature of this action, and this is achieved by understanding the nature of the faculties of imagination and apperception. On these faculties are grounded “the *synthesis* of this manifold [*a priori*] through the imagination” and “the *unity* of this synthesis through original apperception”.²⁶⁰

What we have learned so far is that empirical cognition, in the proper sense, presupposes two acts. First of all, it presupposes an act of intuiting, through which an object is represented, but merely as appearance. Secondly, cognition presupposes an act of *begreifen*, through which an object of experience is represented. In the standard view of cognition, the former act would be called perception and the latter would be called apperception. We must carefully distinguish between these two acts. However, as Kant had to change the Wolffian conception of sensibility, he had to make changes within the two-act theory, and in order to avoid confusion I shall refer to the act of intuiting as the prior act, and to the act of apperception as the posterior act of cognition. Wolff uses these expressions and they are unambiguous. This distinction becomes important at this point because for Kant apperception is not the same as the posterior act of cognition. Kant thinks that the original relation of the pure concepts to possible experience can be investigated through investigating the act of apper-

²⁵⁹ A 94 / B 127.

²⁶⁰ A 94 / B 127.

ception in cognition, but before we move on to the Transcendental Deduction of the categories, we should take a brief look at a theory of apperception that was presented before Kant's *Critique*.

4.5. A Theory of Apperception before Kant's *Critique*

Kant thought that the source for the unity of the manifold in cognition proper lies in the original apperception. This is the crucial element needed for the Transcendental Deduction of the categories that Tetens failed to understand. However, even Kant's doctrine of original apperception was not something unheard of. I noted earlier that Tetens accepted Wolff's view that apperception is dependent on perception, but interestingly, Tetens refers in his *Versuche* to a criticism against Wolff's account of apperception offered by Johann Bernhard Merian, who introduces a conception of apperception anticipating Kant's critical view of the self.²⁶¹ Tetens endorses Merian's view of the impossibility of simultaneous reflecting on one's own reflecting, but he does not share Merian's views on apperception. I will now try to explain the essential point of Merian's criticism against Wolff's account of apperception.²⁶²

Merian wrote two papers on apperception that were originally published in 1749 in French. A German translation of both of these papers became available in 1778, soon after the publication of Tetens' *Versuche*.²⁶³ Merian argues against Wolff's view on the consciousness of objects as depending on reflecting and

²⁶¹ Tetens, *Versuche*, 46–48.

²⁶² For a more detailed discussion on Merian's theory of apperception see Thiel, "Between Wolff and Kant".

²⁶³ Merian, "Ueber die Apperzeption seiner eignen Existenz"; Merian, "Ueber die Apperzeption in Rücksicht auf die Ideen, oder auf die Existenz der Ideen in der Seele".

distinguishing. Let us first identify the object of this criticism: Wolff thought that thinking requires both perception and apperception. However, apperception is not an independent act of the soul but rather depends on the soul's representational activities. For Wolff consciousness of the self is dependent on consciousness of objects, and the latter is dependent on distinguishing objects. Distinguishing, in turn, depends on comparing, and consequently on reflecting, since to reflect something is to compare a manifold of things and to distinguish one representation from another. Finally, Wolff thinks that memory is required for consciousness, because in order to compare thoughts we will have to be able to remember that we have had them before.²⁶⁴ According to Wolff, consciousness of the self depends on comparing and distinguishing the objects of thought, because when we do not observe the difference between objects (when our thoughts are obscure) we do not distinguish objects and thus we do not distinguish the difference between the self and the objects.

Merian builds his theory of apperception on an analysis of the knowledge of one's own existence. Wolff had presented the Cartesian *cogito ergo sum* argument in a syllogistic form: Whatever thinks, exists. I think. Therefore, I exist. Merian thinks that Wolff's mistake lies in stating the conclusion in the minor premise, because "I think" is equivalent to "I exist thinking". He does agree with Wolff that the certainty of one's own existence is of the highest kind, but he thinks that this certainty cannot rest on an argument. Merian argues that knowledge of one's own existence cannot be derived from reflection, because the *conscium sui* through reflection would have to be either immediate or mediate. The *conscium sui* cannot arise from immediate reflection because an immediate reflection is the act of remembering a representation, and if the act of reflection contains the *conscium sui*, it is because the *conscium sui* was already contained in the object of

²⁶⁴ Wolff, *Deutsche Metaphysik*, § 729–§ 734.

reflection. On the other hand, the *conscium sui* cannot arise through mediate reflection either, because this would presuppose a relation between selfhood and a given thought A, and since we have supposed that this thought is separate from the *conscium sui*, we would need the aid of abstraction to establish this relation and thus we would have to conclude that reflection provides us with an abstract notion of the *conscium sui*, which is ridiculous.

Merian concludes that since the knowledge of one's own existence is certain and since we cannot know our own existence through reflection or reasoning or any other mediate way, we must know it immediately through apperception. Merian distinguishes between apperception of objects, or ideas in the mind, and apperception of one's own existence and argues that a thinking being that only apperceives itself is thinkable but a thinking being that apperceives only an object without the *conscium sui* is not. The apperception of one's self is therefore essential to a thinking being. But it is important to note that the apperception cannot apperceive the apperception itself. What we apperceive, according to Merian, is our existence, not the self insofar as it apperceives.

Merian's notion of apperception shows interesting similarities to Kant's thoughts on apperception. As Udo Thiel has pointed out,²⁶⁵ Merian regarded the apperception of one's own existence as an independent act that is logically prior to all other thoughts. It is an "original" act that makes possible all other thought, and although Merian believes that the self is a mental substance, his view on the "original apperception" does not commit him to the view that the thinking self is a mental substance. There thus seems, as Thiel points out, to be an interesting connection between Merian and Kant regarding the limits of Rational Psychology. What interests us here, however, is that Merian argued against Wolff that apperception must be prior to the faculty

²⁶⁵ Thiel, "Between Wolff and Kant".

of distinguishing. For to distinguish A from B is to apperceive that A is not B and B is not A, and this would be impossible if one did not apperceive A and B.²⁶⁶ To be conscious of the self is not the same as to have perceptions: it is rather the case that apperception of ideas presupposes an ad-apperception or co-apperception of one's own existence.²⁶⁷

Kant must have had at least a superficial acquaintance with Merian's thoughts, because Tetens refers to him in the *Ver-suche*. I think it is plausible to assume that Kant did read Merian, but even if he did not, Kant's notion of apperception can be understood through Merian as a criticism against Wolff's (and Tetens') notion of apperception. The crucial element of Kant's theory of cognition that Tetens missed is the role of original apperception in giving unity to the synthesis of the manifold of representations. Although Tetens had read Merian, he did not see the two-fold character of apperception – the transcendental apperception that is prior to cognition and the empirical apperception that is “[t]he consciousness of oneself in accordance with the determinations of our state in internal perception”.²⁶⁸ Tetens only acknowledged the empirical apperception.

However, Tetens did agree with Merian on the point that second order awareness (an awareness of one's own awareness) cannot be simultaneous with first order awareness. But here we need to be careful on how this thought is incorporated into Tetens' theory of inner sense. As Henry Allison reports, T. D. Weldon suggests (as does also Robert Paul Wolff) that there is a connection between Kant's and Tetens' conception of inner sense.²⁶⁹

²⁶⁶ Merian “Ueber die Apperzeption seiner eignen Existenz”, 127.

²⁶⁷ Merian, “Ueber die Apperzeption in Rücksicht auf die Ideen”, 139–140.

²⁶⁸ A 107.

²⁶⁹ Allison, *Kant's Transcendental Idealism*, 259f. Weldon, *Kant's Critique of Pure Reason*, 256–270. Wolff, *Kant's Theory of Mental Activity*, 198–200.

Although in my view Allison's interpretation of the role of inner sense in Kant's theory is mistaken, he does offer an apt criticism against the sort of connection Weldon proposes. As Allison points out, Weldon locates the connection in Tetens' claim that a second order awareness cannot be simultaneous with the first order awareness but must rather come after the first order awareness. Weldon's interpretation is that inner sense for Kant contains past acts of awareness and that the initial awarenesses are objects in space.

Weldon seems not to have taken into account Kant's theory of apperception in comparison to Tetens' theory. And indeed Tetens' adherence to the Wolffian theory of apperception as consciousness of perceptions and thus awareness of awareness can be deceiving. For Tetens all mental activity is in the end action of the faculty of thinking, and the point Weldon mentions therefore is indeed of the utmost importance for Tetens. This is because, according to Tetens, awareness is action of the faculty of thinking, and as the mind is a unity, it cannot exercise this force simultaneously in different actions. This is what leads Tetens to thinking that the mind has to build up its representations gradually by affecting the representations and consequently sensing these affected representations through inner sense and affecting them again. This is the only way the mind can form first general images, then conscious ideas and later concepts and judgements. But, as I hope I have made clear, neither Tetens nor Kant thought that we first have empirical awareness of outer objects through outer sense and then awareness of this awareness through inner sense.

Kant thus shares with Tetens the view that cognition is a result of a continuous process of inner affection and inner sensing and that inner sense is not to be taken as a capacity to reflect or mirror ideas but literally as a sense through which mental action appears to the mind itself. He also agrees with Tetens that Wolff was wrong in assuming that a single cognitive force could work through various cognitive faculties. But in the Transcendental

From the Metaphysical Deduction to the Transcendental Deduction

Deduction, where Kant must investigate cognitive action behind the faculties, the ideas Merian had brought up become vitally important. We will do well to keep in mind how Merian thinks that Wolff is mistaken in his conception of the role of apperception and memory (recognition) in cognition.

5. THE SUBJECTIVE DEDUCTION

5.1. Introduction

We are now ready to turn our attention to the Deductions. In the Preface to the first edition of the *Critique* Kant states that the Transcendental Deduction of the categories has “two sides”:

One side refers to the objects of the pure understanding, and is supposed to demonstrate and make comprehensible the objective validity of its concepts *a priori*; thus it belongs essentially to my ends. The other side deals with the pure understanding itself, concerning its possibility and the powers of cognition on which it itself rests; thus it considers it in a subjective relation, and although this exposition is of great importance in respect of my chief end, it does not belong essentially to it; because the chief question always remains: “What and how much can the understanding and reason cognize free of all experience?” and not: “How is the *faculty of thinking* itself possible?”²⁷⁰

The latter side of the Deduction Kant calls the Subjective Deduction. There are thus not only two sides of one deduction but two deductions. As to the exact location of the Subjective Deduction in the Analytic, Kant remains silent, and the subject has aroused controversy. It may, I think, be argued that the Subjective Deduction proper takes place with the discussion of the three syntheses (pages A 94–A 110). However, as the Subjective Deduction is an inquiry into the original sources of cognition, I take this name here in a broader sense as referring to the whole of the second section of the Deduction chapter. I think this is a very natural interpretation of the location of the Subjective Deduction:

²⁷⁰ A XVI–XVII.

the first section is an introduction; the second section presents the Subjective Deduction and the third section the Objective Deduction. The short introduction (on page 94) to the Subjective Deduction was already discussed above, so we need not discuss it here. In it we were told that our task is to understand the nature of the transcendental use of imagination and apperception.

Kant begins the second section by considering the nature of *a priori* concepts. In the Metaphysical Deduction Kant explained that there are three requirements for our cognition of objects: a pure manifold, a pure synthesis and pure *a priori* concepts. In the introduction to the Deductions he said that there are three original cognitive capacities: sense, imagination and apperception. It is obvious that sense provides the pure manifold while imagination effects its synthesis. Categories are the *a priori* concepts that provide this pure synthesis its unity in thought, and the subjective ground of this unity is the capacity of apperception.

The Subjective Deduction is an inquiry into the *a priori* grounds for the possibility of experience, and Kant first notes that the *a priori* concepts must, although they cannot contain anything empirical, be nothing but *a priori* conditions of possible experience. This is because in order to have a content and to be related to an object of possible experience, without which they would not be concepts through which something could be thought, these concepts must consist of elements of possible experience. Without this relation to possible experience, *a priori* concepts could never arise in thinking, and nothing would be thought through them. Now, Kant says that if we can prove that by means of the categories alone an object can be thought, that would be a sufficient deduction of these *a priori* concepts.²⁷¹ This is the plan of the Subjective Deduction.

This plan is carried out through an inquiry into the subjective sources of cognition. Kant said in the introduction that

²⁷¹ A 95–97.

these sources have both an empirical and a transcendental use and that in the Deduction we are concerned with the transcendental use. Kant now reiterates this:

But since in such a thought there is more at work than the single faculty of thinking, namely the understanding, and the understanding itself, as a faculty of cognition that is to be related to objects, also requires an elucidation of the possibility of this relation, we must first assess not the empirical but the transcendental constitution of the subjective sources that comprise the *a priori* foundations for the possibility of experience.²⁷²

Kant draws an important distinction here. He says that in cognition, i.e. in a thought that is related to an object, there is more at work than merely the faculty of *thinking*. Cognition is not empty thought but presupposes that our thought is related to an object in intuition, and this is why through mere analysis of the faculty of understanding a deduction of its pure *a priori* concepts cannot be accomplished. On the other hand, the understanding is in need of an analysis, as a faculty of *cognition*, because as a faculty of cognition it is necessarily related to objects, and we must analyse how this relation is possible. Thus, in order to show that the pure concepts of the understanding are necessary for objective thought, we must inquire into the transcendental use of the subjective sources of cognition.

It is noteworthy that on page A 94, where Kant states that there are three original sources of cognition which cannot be derived from any other faculty of the mind, he does not offer any argument supporting his claim. This reflects the difference between his and Tetens' projects. Tetens went through great pains to show that by observing the mind we find that there are three fundamental cognitive forces and thus genuinely independent cogni-

²⁷² A 97.

tive faculties that must cooperate in cognition. Kant, on the other hand, just throws the list of original capacities in front of us without any empirical observations of the mind. Moreover, his list differs from Tetens' list, and it therefore cannot be based on Tetens' observations. So where does the list come from? Answering this question becomes easier when we remember that Tetens' empirical observations were connected to the problem of the unity of a manifold. For Wolff, this was not a problem because he thought that the soul is a simple substance acting through a single force, but Tetens and Kant are approaching cognitive faculties (and forces) from the side of experience, and they must explain how cognition gets its unity. Now, Tetens' view on the interplay between the basic cognitive forces was that the force of thinking must be active in mere consciousness of objects before apperception, which arises – in a Wolffian fashion – through the same act of distinguishing through which perception arises. Kant, on the other hand, adopted Merian's position of apperception as an original capacity, so in his view mere consciousness of objects must arise independently of apperception.

Bearing these thoughts in mind we begin to see the justification of Kant's list of original cognitive faculties. As Tetens had already noted, cognition presupposes a combination of a manifold, and this manifold must be represented as one representation. Clearly the manifold is provided by sense, and as the Transcendental Aesthetic shows, it not only provides an empirical manifold but an *a priori* manifold as well. In addition to this, the manifold must be “gone through, taken up, and combined in a certain way”.²⁷³ This is what Kant terms synthesis, and since synthesis is the business of the imagination, it is only natural that imaginal should be counted among the original faculties.

What about the unity then? Regarding intuition, i.e. the mere consciousness of objects (consciousness in the broad sense),

²⁷³ A 76–77 / B 102.

the question of unity is as unproblematic for Kant as it is for Wolff. Although this unity cannot be grounded on the simplicity of the soul (with a single cognitive force), Kant has argued that there is only one time and space, and since the synthesis in intuition is a synthesis in time and space, the effect of synthesis has a unity by virtue of the transcendental use of sense. Regarding consciousness in the narrow sense, however, the answer is not obvious. Kant has shown in the Metaphysical Deduction that the categories provide the unity of synthesis in cognition proper, but how they do that, is yet to be explained. Regarding that question, Kant has just stated that apperception is an original cognitive faculty and the missing piece in the puzzle. In the Subjective Deduction Kant now examines how this faculty gives unity to synthesis.

The question now becomes, how can we conduct an inquiry into the transcendental use of these faculties? Kant's answer is: by analysing synthesis:

If every individual representation were entirely foreign to the other, as it were isolated and separated from it, then there would never arise anything like cognition, which is a whole of compared and connected representations. If therefore I ascribe a synopsis to sense, because it contains a manifold in its intuition, a synthesis must always correspond to this, and *receptivity* can make cognitions possible only if combined with *spontaneity*. This is now the ground of a threefold synthesis, which is necessarily found in all cognition: that, namely, of the *apprehension* of the representations, as modifications of the mind in intuition; of the *reproduction* of them in imagination; and of their *recognition* in the concept. Now these direct us toward three subjective sources of cognition, which make possible even the understanding and, through the latter, all experience as an empirical product of understanding.²⁷⁴

²⁷⁴ A 97–98.

In the Subjective Deduction, then, the objective reality of the categories is approached through the metaphysical distinction between receptivity and spontaneity of the mind. It is important here – as we are about to assess the arguments of the Deductions – to understand that only the three original sources or faculties of the mind, namely sense, imagination and apperception, are independent faculties or capacities. The faculties of sensibility and understanding, by contrast, can be derived from other sources, and the distinction between them can be made in more than one way, depending on how we want to approach the mind. The faculty of understanding can be viewed as the faculty of thought, and in this sense it is mere apperception, but if it is viewed as a faculty of cognition, the faculty of imagination must be considered together with the faculty of apperception. Sensibility, on the other hand, can be considered as mere receptivity of sense, but as a faculty of representing appearances it includes the imagination as well, for receptivity can make cognitions possible only if combined with spontaneity.

Now, spontaneity is the ground of a threefold synthesis. Synthesis, in turn, is a mere effect of the imagination, and imagination is thus involved in three different syntheses: of the apprehension, reproduction and recognition of representations. The analysis of these *effects* of the imagination will direct us to the three subjective sources of cognition, namely the transcendental use of the faculties of sense, imagination and apperception. It is important to realize that Kant approaches synthesis from the side of experience. Like Tetens, he is analysing our cognition, and the three syntheses are listed according to the empirical products of the act of synthesis. The product of apprehension is an intuition, the product of reproduction an imagination and the product of recognition a concept.

If we look at the two editions of the *Critique*, we find that Kant mentions quite a few different syntheses, and it is difficult to know whether each term has a unique referent. Kant clearly had a

tendency to write in a manner that raises questions as to the precise relations of the terms used. In the *Nova dilucidatio*, for instance, he introduces nine different determining grounds and does not adequately explain their meaning to the reader. Here we face the same difficulty, and yet the correct understanding of Kant's whole system depends on the correct understanding of his account of synthesis. For this reason, I think I should mention in advance that although the Subjective Deduction is built on a division between different syntheses of imagination, it is only the empirical use of imagination that allows such a division, and the analysis of the empirical syntheses will direct us to the transcendental use of imagination. This use is an original source of cognition both as perceptual awareness and, in the proper sense of the word, as objective thought.

5.2. *The Synthesis of Apprehension in Intuition*

Kant begins his treatment of the syntheses with a general remark:

Wherever our representations may arise, whether through the influence of external things or as the effect of inner causes, whether they have originated *a priori* or empirically as appearances – as modifications of the mind they nevertheless belong to inner sense, and as such all of our cognitions are in the end subjected to the formal condition of inner sense, namely time, as that in which they must all be ordered, connected, and brought into relations. This is a general remark on which one must ground everything that follows.²⁷⁵

²⁷⁵ A 98–99.

We saw earlier that it is Kant's view that the mere representing of appearances does not involve the use of the categories and that it is independent of apperception. Kant says very clearly that he does not endorse the standard view according to which apperception is synonymous with inner sense. Inner sense is not the same as apperception.²⁷⁶ If they were, it would now be evident that perceptual awareness would involve apperception, because *all* our representations belong to inner sense. However, Kant thought that the Wolffian use of the term – the use to which he himself had once adhered – should be corrected. His position is that the appearances do not require the functions of the understanding, and in this respect his position is the same as Tetens': all consciousness presupposes inner sense but all consciousness is not self-conscious.

Bearing this remark in mind, we can turn to the empirical synthesis of apprehension:

Every intuition contains a manifold in itself, which however would not be represented as such if the mind did not distinguish the time in the succession of impressions on one another; for *as contained in one moment* no representation can ever be anything other than absolute unity.²⁷⁷

This is an extremely important remark, and we will later see that this claim plays a leading role in the B Deduction as well. It says that time (which is the form of inner sense) is a requirement of all apprehending. Indeed, this was already suggested in the Transcendental Aesthetic. It is uncontroversial that representing an object requires that a manifold be represented (Wolff would have agreed on this), and based on the Transcendental Aesthetic we know that representing a manifold is not the same as representing the manifold as a manifold. Thus, the empirical in-

²⁷⁶ See, e.g., B 153.

²⁷⁷ A 99.

tuition through which the object is represented cannot represent the object by itself without action on the part of the subject, because the latter representation entails that the manifold is represented *as* a manifold. In the light of what has been said so far, we know that the empirical intuition provided by outer sense merely contains the data required for representing an appearance and that the prior act produces the appearance. In other words, the data does not determine the appearance: based on the same information different appearances can be produced, and the object thus depends on the act.

It may be useful to consider the above quote in the light of the *Stufenleiter*, according to which *Perzeption* is either intuition or concept. As we are here concerned with the synthesis of apprehension, we are dealing with intuitions. Now, Kant says that every intuition contains a manifold. Empirical intuitions thus contain a manifold, but they are not *Perzeptionen*, because they do not contain a manifold represented as a manifold. They are thus not conscious representations and they do not contain any of the qualities of the objects they represent, because they arise through mere receptivity. Kant is now finally analysing the activity involved in cognition, and his first step is to argue that in the action required for intuiting a manifold as a manifold the mind must distinguish the time in the succession of impressions on one another. We shall shortly see what this means but let us first look at how Kant continues:

Now in order for *unity* of intuition to come from this manifold (as, say, in the representation of space), it is necessary first to run through and then to take together this manifoldness, which action I call the *synthesis of apprehension*, since it is aimed directly at the intuition, which to be sure provides a manifold but can never effect this as such, and indeed as con-

tained in one representation, without the occurrence of such a synthesis.²⁷⁸

Apprehension produces a manifold as a manifold from a mere manifold thereby producing a unity. Cognition requires a synthesis aimed directly at an intuition that does not contain unity, i.e. to the empirical intuition of outer sense. An empirical intuition contains a manifold, because every intuition contains a manifold, but without a synthesis it can never effect this manifold as contained in one representation. Now, an object of intuition does contain (or is) a unity, and the synthesis of apprehension produces an object which is itself an intuition – Kant mentions a representation of space as an example. This object, unlike the empirical intuition, is “one intuition”. It is represented in inner sense, and it is a modification of the mind.

From the above two quotes we can conclude that no intuition can be an absolute unity, because every intuition contains a manifold. In other words, one cannot represent anything simple in space or time.²⁷⁹ This is a Wolffian position, as Wolff thought that we can represent only composite things as outside us.²⁸⁰ Kant thus agrees with Wolff that simple things are entirely different from composite things.²⁸¹ This position is already familiar to us (all conscious representations are unities containing a manifold) but now Kant has drawn attention to the fact that not every intuition is a unity. Moreover, apprehension is ultimately directed at such an intuition, although not necessarily, of course, because we do apprehend objects also by combining conscious representations. Here, however, Kant is concerned with the most fundamental elements of apprehension as a requirement of cognition in general. Even the most rudimentary conscious representations are

²⁷⁸ A 99.

²⁷⁹ See also Ak. 8:202.

²⁸⁰ Wolff, *Deutsche Metaphysik*, § 51.

²⁸¹ See Wolff, *Deutsche Metaphysik*, § 82.

unities containing a manifold, and Kant now makes two claims, namely that 1) without synthesis consciousness is impossible, and 2) consciousness depends on time, the form of inner sense. Before trying to figure out how this is relevant to the argument of the Subjective Deduction, perhaps we should illustrate what apprehension is with an example.

Representing an appearance presupposes that the manifold, i.e. the information contained in the empirical intuition, is collected, and this act is temporally extended. This can be easily understood if we consider perceiving an object of considerable size, say, the Lost Monarch, a Coast Redwood almost 100 meters in height. In fact, as this tree is surrounded by other huge trees, it cannot be perceived by just taking a look at it from a distance. One will have to look at it from different angles and view its crown and its trunk separately. Now suppose that I first look at the trunk and then move my eyes and look at the crown. There are then two representations A and B in a temporal sequence, and my mind must be able to connect these representations so that they are represented as representations of the same object.

Let us pause here for a moment. Kant has argued that time is the form of inner sense and that representations of outer appearances require not only outer sense but inner sense as well. Now we learn that in connecting the representations A and B the mind must be able to distinguish the time in the succession of these representations. What does Kant mean by this? If he merely wanted to point out that apprehension occurs in time, his choice of words would be odd, for distinguishing is something one does. At this point we are not yet in a position to understand his point fully, but we may note that what Kant seems to imply is that not only are A and B represented in a temporal sequence in inner sense but that the mind must be active in representing A and B in time. There can be no distinguishing of empirical representations prior to distinguishing the time in the succession of impressions on one another, and prior to it – although the impressions of outer

senses do follow upon another whether we apprehend something or not – neither these impressions nor time itself can be anything to me.

It may be useful here to consider Tetens' remark that we can feel, or represent, only what is present. When we reproduce a representation of an object represented in the past, we in fact feel our present representation of this object.²⁸² Kant has just made it very clear that all our representations belong to inner sense. Now think of the passing impressions ($i_1, i_2, i_3 \dots i_n$) of our outer sense. Through the mere succession of them, where i_1 is represented before i_2 , this manifold will not be represented as a manifold. Rather, these impressions must be represented simultaneously, and thus representations occurring at different moments of time must be represented as present. This, Kant claims, would not be possible if the mind did not distinguish the time in the succession of these representations.

An objection may be raised against this reading by noting that Kant has just said that as contained in one moment no representation can ever be anything other than absolute unity. However, I take him to imply by this only that all conscious representations are temporally extended. The empirical data, through which an appearance is represented, is represented as simultaneous but the representation does not occur at a single moment.

In fact, this is how I think Kant would expect a Wolffian to read these passages. What we are here dealing with is consciousness, and Wolff's position was that we can be conscious only of composite things. Let us see what he says about consciousness of an outer object:

We therefore find that we are conscious of things when we distinguish them from one another. Thus [...] I am conscious that I see the mirror when I not only distinguish the different parts that I perceive in it but also represent to myself the dif-

²⁸² Tetens, *Versuche*, 170–172.

ference itself between the mirror and other things that I either see with it or have seen a moment before.²⁸³

Consciousness thus depends on the act of distinguishing, which presupposes comparing.²⁸⁴ This, in turn, presupposes the faculty of memory, because the subject must be able to represent a past representation in order to compare a present one with it.²⁸⁵ Distinguishing thus occurs in time and the act of distinguishing has duration. Wolff thinks that also our thoughts have duration, and consciousness of oneself arises from distinguishing (indistinctly) the parts of that time in which the thought occurs.²⁸⁶ We can thus see that Kant's line of thought is very familiar to a Wolffian here. However, two differences between Wolff and Kant require attention. The first is that Kant speaks of mental impressions which do not have a place in Wolff's philosophy. The other difference is that for Kant, distinguishing the time in our representations is not only a condition of self-consciousness but all consciousness. These differences stem from Kant's new conception of time and inner sense, as we shall see. One cannot make the sort of change to Wolff's philosophy that Kant wants to make without making the analysis applicable to the prior act as well.

I explained earlier that according to Tetens, our representations represent previous modifications of the mind. According to this view our consciousness of outer objects is a result of a reproduction of our impressions. Although Kant does not adopt

²⁸³ "Wir finden demnach, dass wir alsdenn uns der Dinge bewusst sind, wenn wir sie von einander unterscheiden. Als [...] bin ich mir bewusst, dass ich den Spiegel sehe, wenn ich nicht allein die verschiedene Theile, die ich in ihm wahrnehme, von einander unterscheide, sondern mir auch selbst den Unterscheid des Spiegels von anderen Dingen, die ich entweder mit ihm zugleich sehe oder kurz vorher gesehen, vorstelle." Wolff, *Deutsche Metaphysik*, § 729.

²⁸⁴ Wolff, *Deutsche Metaphysik*, § 733.

²⁸⁵ Wolff, *Deutsche Metaphysik*, § 734.

²⁸⁶ Wolff, *Deutsche Metaphysik*, § 735.

Tetens' use of the word "representation" and although Tetens' empirical analysis of the act of perception does not belong to transcendental logic, there is a connection between Kant and Tetens here. We might say that Kant extracts from Tetens what *does* belong to transcendental philosophy, and takes his investigation to a new level. The impressions of outer sense provide us with a manifold in spatial form but this manifold is, of course, not constant. When I sit by the fire I receive varying impressions of light and warmth, and these impressions thus occur in a temporal sequence in my inner sense. In my example of the perception of the Lost Monarch, it is evident that if I first look at its trunk and then at its crown, my representation of the trunk has to be reproduced in order to connect these two representations. The same applies to all apprehension. In the case of the tree, however, the two representations A and B are already conscious representations, and Kant's point thus concerns reproduction at a more elementary level: any representation of a manifold as a manifold involves reproduction and thus requires that the mind is able to distinguish the time in the succession of representations. Mere succession of outer impressions does not provide us with appearances. This point will be elaborated in greater detail shortly.

Kant also says in the above quote that the manifold must be taken together in order for unity of intuition to come from this manifold. What this means is that having the representations A and B does not amount to a representation of A and B together (A+B, one might put it). The latter representation requires an act through which these representations are combined into one representation. Thus, the synthesis of apprehension is the act of running through the manifold of an empirical intuition and taking together this manifoldness. This yields a representation of the manifold as a manifold and it also yields a unity of intuition. The empirical intuition gives us the manifold for an appearance, but only the manifold, and the synthesis of apprehension is needed in order to represent this manifold in one representation.

We should now try to clarify further how empirical intuition is related to appearances and how we apprehend them. So far we have seen that outer sense gives us impressions in the form of space and that representing an appearance requires a mental act through which our inner sense is affected. Let us return to the *Stufenleiter*. In it, Kant says that sensations are conscious representations, but he does not count impressions among conscious representations. Now, I explained in the Introduction that according to Reid the act of perception, i.e. consciousness of an object, is a prerequisite for the possibility of reflecting on our subjective sensations. This may be paraphrased as follows: distinguishing an object of perception is a requirement for distinguishing subjective sensations. In chapter 1 we saw that according to Tetens, conscious sensations require pre-conscious abstraction, because distinguishing a sensation presupposes representations in which the sensation is represented in combination with other representations. Thus, also Tetens thought that distinguishing an object is a requirement for distinguishing sensations, as I explained in section 1.2. It seems that representing shapes is for Tetens the most fundamental kind of representing and that his empirical method is incapable of analysing cognitive action any deeper than this.

But Kant's method is transcendental, and now he must confront the problem of how we are able to represent shapes. He has stated that any representation of an empirical object presupposes an empirical synthesis of apprehension through which a manifold is represented in one representation, and that this requires that the mind is able to distinguish the time in the succession of impressions on one another. In the passages above he has thus considered synthesis of apprehension in general. But this synthesis is not limited to the synthesis of an empirical manifold. There is also a pure synthesis of apprehension:

Now this synthesis of apprehension must also be exercised *a priori*, i.e., in regard to representations that are not empirical.

For without it we could have *a priori* neither the representations of space nor of time, since these can be generated only through the synthesis of the manifold that sensibility in its original receptivity provides. We therefore have a *pure* synthesis of apprehension.²⁸⁷

We already know that representing an object depends first and foremost on a pure synthesis. We do ascribe brown colour to an acorn but the acorn is not made of its colour. The sensation, i.e. the representation of the colour, is a conscious representation, and it is represented in inner sense. The impressions, on the other hand, are not conscious representations and we receive them through outer sense. Above it was said that apprehension presupposes a synthesis of these pre-conscious empirical representations. This is evident, because without mental action we would not become conscious of the empirical matter provided by outer sense. How this synthesis works remains hidden from us, however. As Kant says, we are seldom even conscious of this hidden art, which lies in the depths of the human soul.²⁸⁸ This is only natural, because consciousness presupposes a representation in inner sense, and the material for this act does not consist of representations in inner sense. What we do know is that any conscious representation, either sensation or cognition, requires a synthesis, because without synthesis we cannot represent a manifold in one representation.

Now, although we cannot observe this synthesis, we can know something it. The effect presupposes a distinguishing of time. As apprehension depends on a pure synthesis, cognition is founded on a synthesis of apprehension of a pure manifold. A spatial appearance has a shape, so a pure manifold of space has to be run through and taken together. In a like manner, representing an event requires that the pure manifold of time is run through

²⁸⁷ A 99–A 100.

²⁸⁸ see A 141 / B 180.

and taken together. With this synthesis, time and space become something to us, although in mere perceptual awareness we are not yet conscious of time and space themselves conceptually but only of particular times and spaces in intuition.

A representation of time presupposes a representation of space, so the representations of space are the most fundamental of our conscious representations. We have thus taken the first peek at the hidden synthesis behind appearances. At the most fundamental level it presupposes that the time in the succession of the pure manifold of space is distinguished. When we discuss the second synthesis, we will understand this point more fully; now it will suffice to understand that intuiting objects requires inner sense and that it ultimately depends on the synthesis of apprehension of a pure manifold.

We may now look back at what Kant said in the Metaphysical Deduction about the three requirements of cognition of objects, namely pure manifold, pure synthesis and pure concepts. He there said that pure concepts give unity to cognition proper. He also said that the appearances do not need this unity, and I explained that this is because sense itself provides the unity required for the prior act of synthesis. Nevertheless, we see now that this unity is not provided by sense alone, because a pure manifold is not by itself represented as a manifold. In other words, appearances depend on the prior act of cognition.

I plan to explain what apprehension is after the discussion on the Subjective Deduction, but we can here see that like philosophers from Alhazen to Reid and Tetens, also Kant thinks that perception requires an act of apprehension quick as lightning. Although this conclusion may *prima facie* seem odd, the persistence of this view through centuries indicates that it should be taken seriously. And in fact, when we look at Kant's theory, we find that the quickness of apprehension in fact poses no problem. Remember that time is the form of inner sense and that the act of apprehension, which is temporal, can only appear to us through

its effect. As our consciousness depends on inner sense, it follows that we cannot be conscious of the duration of the most fundamental synthesis, where the manifold is not conscious. One should also note that something can be quick or slow only as compared to something else, and that the synthesis of apprehension can only be considered quick as compared to something conscious. Suppose, then, that the apprehension of an object would be made a thousand times slower: it would still appear to us to be as quick as lightning. In addition to this, Kant's account of perception is reminiscent of Alhazen's theory also in the sense that Kant too thinks that in apprehension we will have to reproduce what we have sensed before. To this topic we will turn in the next subsection.

5.3. The Synthesis of Reproduction in the Imagination

According to Wolff, the faculty of imagination is the faculty of reproducing ideas of absent things.²⁸⁹ Reproduction was thus thought to be the effect of the action of imagination, and it was thought that this reproduction occurs according to the law of association. Kant begins the section on the second synthesis by introducing this law as the empirical law of the imagination:

It is, to be sure, a merely empirical law in accordance with which representations that have often followed or accompanied one another are finally associated with each other and thereby placed in a connection in accordance with which, even without the presence of the object, one of these representations brings about a transition of the mind to the other in accordance with a constant rule.²⁹⁰

²⁸⁹ Wolff, *Psychologia empirica*, § 92.

²⁹⁰ A 100.

Kant, however, does not want to stop here, and he thinks that we can continue the analysis of the mind's workings in its use of imagination beyond the level of its empirical use by analysing the preconditions of this use. The rather obvious fact that the empirical use of imagination presupposes that the appearances must then be subject to such a rule serves as the starting-point for this analysis:

This law of reproduction, however, presupposes that the appearances themselves are actually subject to such a rule, and that in the manifold of their representations an accompaniment or succession takes place according to certain rules; for without that our empirical imagination would never get to do anything suitable to its capacity, and would thus remain hidden in the interior of the mind, like a dead and to us unknown faculty.²⁹¹

Kant provides us with examples. If, for instance, cinnabar were now red, now black, now light, now heavy, our empirical imagination would never get the opportunity to think of heavy cinnabar on the occasion of the representation of the colour red.²⁹² Given Kant's conception of the appearances as nothing but modifications of the mind, this fact presupposes an *a priori* rule. Let us try to see what Kant's examples are supposed to show.

Our perceptual awareness involves more than mere apprehension: it involves empirical reproduction of appearances. Consider Kant's example of heavy cinnabar. If I am acquainted with this appearance I do not necessarily have to feel its weight in order to be aware of its heaviness. On the occasion of the colour red (of the cinnabar) my empirical imagination can reproduce the appearance of heavy cinnabar in accordance with the law of association, and the sensation of its colour can lead me to apprehend a

²⁹¹ A 100.

²⁹² A 100–101.

heavy cinnabar. Thus, if someone throws me a piece of this ore, I am able to anticipate its weight before catching it. The empirical reproduction is therefore not limited to instances where the reproduced appearance (e.g. heavy cinnabar) is absent and where the mind only imagines it on the occasion of the representation of one of its characteristics (e.g. the colour red). Associating appearances with each other is thus an integral element of our apprehension in that it allows us to apprehend appearances without sensing all their characteristics.

Now, in the above example the reproduction requires prior perception of an object where redness and weight were represented as combined, i.e. an apprehension of the appearance of heavy cinnabar. It also requires that this combination has been a constant one. From this Kant can draw the following conclusion:

There must therefore be something that itself makes possible this reproduction of the appearances by being the *a priori* ground of a necessary synthetic unity of them. One soon comes upon this if one recalls that appearances are nothing in themselves, but rather the mere play of our representations, which in the end come down to determinations of the inner sense.²⁹³

What we need to understand here is that in the data of outer senses as such there is no accompaniment or succession. Representing a piece of heavy cinnabar requires that the imagination takes the colour red and the weight of the ore together and forms a unitary representation of the colour and the weight. If these representations have often accompanied each other and if this accompaniment thus takes place according to a rule, the empirical imagination gets the opportunity to associate them with each other. However, as the appearances are mere modifications of the mind and belong to inner sense, the origin of the rule itself

²⁹³ A 101.

has to be *a priori*. The synthesis of apprehension therefore follows an *a priori* rule without which empirical reproduction would be impossible.

In the previous subsection Kant showed that there is both an empirical and a pure apprehension. Now we learn that empirical reproduction presupposes an *a priori* ground, because an *a priori* condition must ground the necessary synthetic unity of appearances. Kant's next step is to argue that even the apprehension of pure intuitions contains a combination that is presupposed by the empirical reproduction:

Now if we can demonstrate that even our purest *a priori* intuitions provide no cognition except insofar as they contain the sort of combination of the manifold that makes possible a thoroughgoing synthesis of reproduction, then this synthesis of the imagination would be grounded even prior to all experience on *a priori* principles, and one must assume a pure transcendental synthesis of this power, which grounds even the possibility of all experience (as that which necessarily presupposes the reproducibility of appearances).²⁹⁴

Here Kant reveals what he is trying to achieve in the section on the synthesis of reproduction. First of all, we must understand that experience, as Kant notes, necessarily presupposes the reproducibility of appearances.²⁹⁵ Experience is not, of course, mere association of appearances, and we shall see in the section on the third synthesis that the faculty responsible for the mere empirical reproduction is not the empirical faculty of reproduction required for experience. Nevertheless, empirical *reproducibility* is a necessary requirement for experience. My cognition that during a lunar eclipse, the Sun, the Earth and the Moon are aligned, is possible only if I can reproduce my representations of

²⁹⁴ A 101–102, translation modified.

²⁹⁵ This point is unfortunately lost in the translation by Guyer and Wood.

these astronomical bodies. In section 3.1 I argued that Kant thinks that only conscious representations are empirically reproducible and that conscious representations require synthesis. Here Kant intends to prove that the reproducibility of appearances is grounded on a reproduction which he calls transcendental as opposed to a merely empirical reproduction. As was discussed in sections 3.3 and 4.3, our experience is necessarily conceptual and it requires a unity which the imagination alone with its synthesis cannot provide. In the Metaphysical Deduction Kant showed that experience is grounded on *a priori* principles. Now the plan is to show that even prior to experience, the synthesis of imagination is grounded on *a priori* principles.

Experience presupposes the reproducibility of appearances, so the empirical faculty of imagination is a requirement for experience. On the other hand, the thoroughgoing synthesis of empirical reproduction, i.e. a reproduction where the reproduced representation is itself a unity containing a manifold, rests on an *a priori* condition without which the empirical faculty would remain a hidden art. This *a priori* condition is what now needs to be analysed.

Now it is obvious that if I draw a line in thought, or think of the time from one noon to the next, or even want to represent a certain number to myself, I must necessarily grasp one of these manifold representations after another in my thoughts. But if I were to lose the preceding representations (the first parts of the line, the preceding parts of time, or the successively represented units) from my thoughts and not reproduce them when I proceed to the following ones, then no whole representation and none of the previously mentioned thoughts, not even the purest and most fundamental representations of space and time, could ever arise.²⁹⁶

²⁹⁶ A 102.

In this passage Kant uses examples of the pure representations of space, time and number. His examples are acts of thought, and as we saw earlier, Wolff would agree with Kant on the requirement of reproduction in these acts. However, although Kant's examples are acts of the understanding, their purpose is to show that without reproduction no whole representation could ever arise. This includes not only the examples Kant gives but also "the purest and most fundamental representations of space and time". All *empirically reproducible* representations necessarily contain a pure manifold, and since they are reproducible representations, they are unities containing a manifold. Therefore, empirical reproducibility is grounded on a pure synthesis of reproduction, where reproduction cannot follow the empirical laws of association. In chapter 1 I explained how Tetens thought that empirical reproducibility was grounded on the productive faculty, which he called the faculty of feigning. Tetens' analysis was empirical, and as Kant has argued, the Deduction of the categories is not possible through a merely empirical analysis of the faculties. Kant therefore needs to find a way to look behind the empirical faculty, which produces our reproducible representations, and here he has found out how it works: the productive faculty is based on reproduction.

One cannot overemphasize the importance of this discovery. It is also a discovery where Kant's originality cannot be questioned. As we will learn when we move to the third section of the Deduction chapter where Kant presents the Objective Deduction, he claims that he is the first to have discovered that it is the *imagination* that is responsible for the production of our reproducible representations. When we discussed Tetens we found out that representing shapes seems to be the end of the line of the analysis of experience. Now we see that a transcendental inquiry can reveal a condition of representing shapes. The most fundamental representations of space are unitary representations that contain an *a priori* manifold, and they must therefore "contain the

sort of combination of the manifold that makes possible a thoroughgoing synthesis of reproduction". The empirical synthesis of reproduction is therefore grounded on *a priori* principles even prior to all experience, and there is a pure *transcendental* synthesis of reproduction.

The conclusion then is:

The synthesis of apprehension is therefore inseparably combined with the synthesis of reproduction. And since the former constitutes the transcendental ground of the possibility of all cognition in general (not only of empirical cognition, but also of pure *a priori* cognition), the reproductive synthesis of the imagination belongs among the transcendental actions of the mind, and with respect to this we will also call this faculty the transcendental faculty of the imagination.²⁹⁷

The synthesis of apprehension and the synthesis of reproduction are inseparable not only because empirical reproduction is constantly involved in our apprehension of appearances but also because apprehension, as we already anticipated above, is altogether impossible without transcendental reproduction. Therefore, since it was shown that the possibility of all cognition in general is grounded on a transcendental synthesis of apprehension, the reproduction required for the latter is also a transcendental synthesis.

At this point it is, I think, useful to consider the distinction between empirical and transcendental uses of our original sources of cognition, which Kant introduced in A 94. Sense, imagination and apperception all have a transcendental use. The transcendental use of sense was discussed in the *Transcendental Aesthetic*: space and time are conditions of the receptivity of our mind. It has now become clear that this use alone is incapable of producing appearances. Appearances cannot be represented with-

²⁹⁷ A 102.

out representing pure intuitions (first and foremost shapes), which in turn cannot be represented without a synthesis of a pure manifold of intuition. Thus, as Kant concluded in the section on the synthesis of apprehension, we have a pure synthesis of apprehension. Here, in the above quote he says that the synthesis of apprehension constitutes the transcendental ground of the possibility of all cognition.

Now, there is a real danger of getting confused here because of the wealth of distinctions Kant makes. Remember that Kant makes a distinction between empirical and transcendental uses of our original sources of cognition. Imagination is one of those sources, and now Kant has examined two syntheses that are inseparably combined with each other (one is yet to be examined). How, then, is the distinction between the synthesis of apprehension and the synthesis of reproduction related to the distinction between an empirical and a transcendental use of imagination? To answer this, we should first remind ourselves that there is a distinction also between an empirical and a pure synthesis. Regarding the synthesis of apprehension Kant showed first that empirical apprehension involves not only a synthesis of empirical matter but also a pure synthesis of apprehension. Regarding the synthesis of reproduction, however, the situation is somewhat different. Admittedly, when the mind reproduces an appearance, it must reproduce an *a priori* representation, but this is not Kant's point in the present section. His point is, rather, that a pure intuition (which is a product of a pure synthesis of apprehension) is possible only through reproduction, and that there is therefore a pure transcendental synthesis of reproduction. This means that the transcendental use of the faculty of imagination consists in reproduction.

In section 1.2 we saw that according to Tetens, the faculty of feigning is responsible for apprehension and that it produces our reproducible representations, whereas the faculty of imagination, which is a reproductive faculty, cannot be the source of

combination. What Kant has now achieved – and this will prove to be vitally important – is that he has shown that the *imagination* is, after all, the source of combination and that there are two kinds of reproduction: one that follows the laws of association, and one that provides a transcendental ground of all empirical reproduction.

We may now turn our attention back to § 10 where Kant introduced synthesis (discussed in section 3.3 of this study). There Kant's purpose was to establish that in subsuming intuitions under concepts the categories provide the unity required for the synthesis of a pure manifold. Although his aim was not to analyse apprehension, it is now clear that also mere apprehension of appearances requires a synthesis of a pure manifold. What, then, is the relation of this pure synthesis to the transcendental use of our cognitive faculties? Since sensibility isn't one of our original sources of cognition, it must be derivable from those original sources. We now have enough evidence to determine what sensibility consists in, but Kant's terminology can be an obstacle in answering the question. Although it should not be too hard to see the answer, one can easily get entangled in the web of faculties in trying to figure out the answer, so the task requires diligence.

Consider first that Kant thinks that apprehension necessarily involves combination, which he terms synthesis. Now, in Wolff the combination of perceptions is the work of the faculty of feigning, which is reducible to the faculty of imagination.²⁹⁸ Tetens, on the other hand, argued that the faculty of imagination is a merely reproductive faculty and that the faculty of feigning is not derivable from the faculty of imagination. He also argued that without the faculty of feigning the imagination would not have anything to reproduce. To borrow Kant's words, imagination would remain hidden in the interior of the mind, like a dead and to us unknown faculty. Although Kant agrees with Tetens on the

²⁹⁸ Wolff, *Psychologia empirica*, §144.

last point, he has now shown that the faculty of feigning is, after all, derivable from the faculty of imagination.

I suggest we now take a look at the empirical use of the three original sources. As we are presently concerned with what *sensibility* is, we can at this point ignore apperception and concentrate on sense and imagination. If through sense we can have a synopsis of the manifold *a priori*, then based on what has been said concerning the synthesis of apprehension, the empirical use of sense requires transcendental reproduction. Remember that Kant said that we must first “assess not the empirical but the transcendental constitution of the subjective sources that comprise the *a priori* foundations for the possibility of experience.”²⁹⁹ Kant then continued:

If [...] I ascribe a synopsis to sense, because it contains a manifold in its intuition, a synthesis must always correspond to this, and *receptivity* can make cognitions possible only if combined with *spontaneity*.³⁰⁰

For a synopsis, we therefore need the transcendental use of both sense and imagination. The discussion on the first two syntheses has thus revealed us the nature of the transcendental use of imagination, and we can at last determine what sensibility is: it consists in the use – ultimately in the transcendental use – of sense and imagination, so that both of these uses are necessary for representing appearances. The empirical use of imagination, of course, also belongs to sensibility.

Thus, even prior to all thinking, in the awareness of the regularity among our representations towards which our thought can subsequently be directed, we have made use of our transcendental faculty of imagination, because without the latter, the regu-

²⁹⁹ A 97.

³⁰⁰ A 97.

larity would not be possible. And as there would be no regularity among our representations, there would be no experience either. Further, since there is a pure synthesis of apprehension, which belongs to the transcendental actions of the mind, there is also a transcendental synthesis of reproduction, which grounds the possibility of all cognition in general. This transcendental action of the mind is one of the original sources of all our cognition.

Before we move on to the third synthesis, I would like to remind the reader, just to be completely sure that Kant's argument so far is understood correctly, of the fact that the first two syntheses are named according to the empirical use of the imagination. Kant instructed us on pages A 95–96 that the three syntheses are supposed to uncover the transcendental use of the faculties of imagination and apperception. The transcendental use of sense was already discussed in the *Transcendental Aesthetic*. By analysing the empirical use of imagination in apprehension and reproduction of appearances Kant has shown that the ability to represent appearances is grounded on the transcendental reproduction of representations, on which all synthesis depends. Thus, when cognition, understood as mere intuiting, is grounded on the synthesis of the manifold of sense on the one hand, and on the synthesis of this manifold through imagination on the other, these two, in turn, are grounded on the transcendental use of sense and imagination. Receptivity and spontaneity are thus necessarily involved in all cognition in general, either merely intuitive cognition or cognition in the proper sense. Now it is left for us to examine the third original source of cognition, namely the transcendental apperception.

5.4. The Synthesis of Recognition in the Concept

According to Wolff, to recognize a reproduced idea is to be conscious of having had the idea before.³⁰¹ Recognition thus depends on reproduction but these two acts spring from different faculties: in Wolff imagination is the faculty of reproducing ideas whereas memory is the faculty of recognizing the reproduced ideas.³⁰² In the third synthesis we are now concerned with the distinction between mere reproduction of representations on the one hand and recognition of the reproduced representations on the other.

From the title of this subsection we can make a couple of preliminary observations. Mere reproduction of a representation obviously does not require consciousness of having had the representation before, so we should expect – since recognition is consciousness of having had a representation before – that Kant will turn his eye on the consciousness involved in recognition. Further, we see that in the title of this subsection recognition is paired with concepts, suggesting thus that recognition is an act of the understanding. We should thus expect to see in this subsection an analysis of the faculty of concepts and of consciousness, thus of the third requirement of cognition introduced in § 10.

In order to have a better understanding of the background of these issues, it may be useful first to take a look at what Leibniz says about recognition:

A notion which is not sufficient for recognizing the thing represented is *obscure*, as, for example, if whenever I remember some flower or animal I once saw, I cannot do so sufficiently well for me to recognize that flower or animal when presented and to distinguish it from other nearby flowers or animals

³⁰¹ Wolff, *Psychologia empirica*, § 173.

³⁰² Wolff, *Psychologia empirica*, § 92 and § 175.

[...] Therefore, cognition is *clear* when I have the means for recognizing the thing represented.³⁰³

Of course, in order to be able to recognize that a flower I now see is the same flower that I saw earlier, I have to have a representation of a flower that I can reproduce. We have seen that according to Kant, apprehension of the flower requires transcendental reproduction and that my awareness of a flower, once I am acquainted with flowers, in fact involves empirical reproduction as well, because in being aware of it, what I actually see or smell or feel, is amended by representations that I do not actually see, smell or feel.

It is quite obvious that empirical reproduction of appearances is not recognition. It is not an instance of recognizing a representation to be the same as a reproduced representation, and it does not involve the consciousness needed for recognition. But what about the transcendental reproduction that is required for apprehension – could that be a case of recognition? Apprehension of appearances depends on transcendental reproduction because an empirical manifold can only appear in space and time, and the apprehension of an empirical manifold consequently requires an *a priori* apprehension of a pure manifold. But in this case the transcendental reproduction is intuitive, not conceptual. Think of a very small child becoming acquainted with a ball. The child must apprehend the spherical shape of this object by running through and taking together a pure manifold of space. The outcome of this pure apprehension is a representation of the spherical shape, but this representation is an intuition, not a concept. Having the intuition is a requirement for the conceptual representation of this shape, which the child may at a later stage of his or her cognitive development acquire, but the reproduction involved in the pure

³⁰³ “Meditations on Knowledge, Truth and Ideas”, 23–24. I have substituted ‘cognition’ for ‘knowledge’ in the translation.

apprehension of the shape of the ball is not recognition, and the child's representation of the ball is not conceptual.

Now, once the child has apprehended the spherical shape, he or she will be able to associate it with other representations. The child may associate the shape with a distinctive colour, and on the occasion of seeing that colour he or she may reproduce the representation of the shape, but this reproduction is not recognition. What, then, are the transcendental requirements of the *recognition* of this shape? In order to answer this question, we should ask ourselves what it requires for me to be able to *think* that this shape is the same as the one that was represented before. This is the question we should keep in mind when reading the third subsection.

Kant begins the subsection by an explication of how recognition requires consciousness:

Without consciousness that that which we think is the very same as what we thought a moment before, all reproduction in the series of representations would be in vain. For it would be a new representation in our current state, which would not belong at all to the act through which it had been gradually generated, and its manifold would never constitute a whole, since it would lack the unity that only consciousness can obtain for it.³⁰⁴

The subject matter is now thinking, whereas in the first two subsections it was intuiting. Dyck, who rightly sees the Subjective Deduction against the background of the discussion on the fundamental force, has argued that Kant is here attacking the Leibnizian view, expressed in the passage I quoted above, according to which not all cognition requires recognition.³⁰⁵ However, with regard to the Leibnizian-Wolffian philosophy I see here con-

³⁰⁴ A 103.

³⁰⁵ Dyck, "Subjective Deduction", 170.

tinuity rather than divergence. I think that Kant is in agreement with Leibniz, and his view is that mere reproduction can yield cognition in the broad sense of the term, although, of course, he does not see the distinction as a distinction between clarity and distinctness vs. obscurity and confusedness, as Leibniz does. Even though an intuition can be distinct, without concepts we could not be conscious of its sameness with a reproduced representation and the reproduction would be merely associative. Distinctness does not, therefore, in itself secure the recognisability of a representation. We must, rather, turn our eye on the consciousness required for recognisability.

According to the *Jäsche Logic* cognition can be graded in regard to the objective content of our cognition in general. Although the content of cognition is represented consciously already on the second grade level (in perception), it is not until the fourth grade that the content is cognized [*erkennen, cognoscere*]. Cognizing is the level of cognition in which thinking is involved. The third grade is “to be acquainted with something (*noscere*), or to represent something in comparison with other things, both as to *sameness* and to *difference*”. In this level of cognition, the acquaintance with objects is not yet “with consciousness”, and it is reported that animals too are acquainted with objects, although they do not cognize them.³⁰⁶ Representing the sameness of the representations is thus possible without thinking and concepts but the consciousness of the sameness is not.

Now although in the first two subsections the conclusions drawn concern the intuitive part of cognition and here the subject matter is the conceptual part, the beginning of the third subsection is not a beginning of a new argument. In the *Leitfaden* Kant stated that the synthesis of a pure manifold by means of the imagination is needed for the cognition of all objects, noting also that this synthesis does not by itself yield cognition (in the proper

³⁰⁶ *Logik Jäsche*, Ak. 9:64–65.

sense).³⁰⁷ In the second subsection of the Subjective Deduction he argued that experience necessarily presupposes reproducibility of appearances and that the possibility of all experience is grounded on a transcendental reproduction. He also argued that in order for experience to be possible our purest and most fundamental representations of space and time must contain a combination that makes possible a thoroughgoing synthesis of reproduction (i.e. a reproduction required for experience).³⁰⁸ It has thus already been shown that a transcendental synthesis of reproduction is a requirement for conceptual cognition. Now Kant wants to show what else, besides this transcendental action of imagination, is needed for recognition. We may put the matter as follows: To be able to cognize objects requires something over and above the mere acquaintance with objects, namely acquaintance with consciousness. Acquaintance itself is consciousness and it requires a transcendental synthesis of reproduction of an *a priori* manifold, but as Kant has already stated, this does not yield conceptual cognition and experience.

What has to be added to mere reproduction is unity. To be sure, a reproducible representation itself necessarily is a unitary representation, but empirical reproduction itself does not involve a unity, if it is not a conscious reproduction. The third subsection now shows how the understanding gives unity to the synthesis of imagination needed for recognition. It starts with the observation, stated in the above quote, that thinking involves not only reproduction but recognition, and thus consciousness of reproduction. This observation continues the argument from where it was left in the second subsection.

From the examples of the second subsection Kant picks out the representation of a number:

³⁰⁷ A 78–79 / B 104.

³⁰⁸ A 101–102.

If, in counting, I forget that the units that now hover before my senses were successively added to each other by me, then I would not cognize the generation of the multitude through which this successive addition of one to the other, and consequently I would not cognize the number; for this concept consists solely in the consciousness of the synthesis.³⁰⁹

A small detail is worth noticing here: Kant speaks about units hovering before one's senses. This indicates that the pure representation of a number is not his concern here but the counting of appearances, for the former would involve only the inner sense, not senses. Thus, the example shows how the pure concept of number is applied to empirical data. The empirical data, as we have learned, must contain the sort of combination of an *a priori* manifold that makes the thoroughgoing reproduction of the appearances possible. When I count appearances, these appearances must have shapes, and they are reproducible only because they are represented as units that I can add to other units. Thus, even prior to all experience, as Kant has noted, the synthesis of imagination (which enables me to count these appearances by combining the impressions of the senses to appearances) is grounded on *a priori* principles (because this combination involves a synthesis of a pure manifold). However, this synthesis does not and cannot involve concepts, for we must first be conscious of appearances before we can think (be self-conscious of) them. Empirical concepts require the synthesis of recognition of appearances, and for that synthesis we need pure concepts, just as we need pure intuitions for the synthesis of reproduction.

The pure concept needed for cognizing an object of thought consists solely in the consciousness of the unity of synthesis, as Kant notes by using the concept of number as an example. The concept implies a unity of consciousness, because con-

³⁰⁹ A 103.

consciousness of the unity of synthesis presupposes a unity of consciousness:

For it is this *one* consciousness that unifies the manifold that has been successively intuited, and then also reproduced, into one representation.³¹⁰

In counting, one consciousness must *remember* the reproduced units in order for cognition of a number to be possible. The move from the consciousness of the synthesis to the oneness of the synthesizing consciousness is a natural one. If I am not conscious of the sameness of a reproduced representation with a present representation in synthesis, then I cannot become conscious of the synthesis itself, and hence I cannot have the concept. Already Kant's teacher Martin Knutzen (1713–1751) had drawn attention to the fact that comparing a manifold of representations presupposes oneness of the subject that is conscious of the manifold.³¹¹ This one apperception is what we must look into, when we want to understand the source of the unity of conceptual cognition. Apprehension enables us to be conscious of and acquainted with appearances, but cognizing them requires apperception. Thus, apperception is necessarily involved in the use of concepts.

At this point we may remind ourselves of the question Kant posed on page A 93 (B 125), namely “whether *a priori* concepts do not also precede, as conditions under which alone something can be, if not intuited, nevertheless thought as object in general”. If there are such concepts, then our “empirical cognition of objects is necessarily in accord with them, since without their presupposition nothing is possible as *object of experience*.”³¹² The agenda of the Subjective Deduction is to investigate the subjec-

³¹⁰ A 103.

³¹¹ Knutzen, *Philosophische Abhandlung*, § 2–3. See also Dyck, “A Wolff in Kant's Clothing”.

³¹² A 93 / B 125–126.

tive side of cognition and thus to analyse pure understanding itself regarding its use in cognizing an object. However, even though it considers this relation from the subjective side, the analysis must concern the use of the understanding in cognizing an *object*, and we must therefore analyse the act of representing an object. As I mentioned earlier, it is useful to consider concepts as acts. We have now discovered that the act of cognizing an object requires concepts and that concepts, in turn, require that one consciousness unifies the manifold of intuition into one representation.

The analysis of the action of the pure understanding in cognizing an object may now begin, and it can begin only with an analysis of the expression “an object of representations”. The appearances, Kant notes, are nothing but sensible representations, not objects outside the power of representation, so the question is: “What does it mean, then, if one speaks of an object corresponding to and therefore distinct from the cognition?”³¹³

We saw that according to Tetens' analysis any unitary representation of a manifold requires that the mind has the component representations at its disposal as appearances and that this depends on the ability to distinguish these appearances. The distinguishing of a partial representation of an appearance, in turn, requires that this representation has previously appeared in connection with something else. If, for example, my sensation of warmth had always been represented together with the sensation of the colour red, and neither of them had ever been represented in connection with something else, I could not distinguish the warmth from the colour red. But if the warmth would then occur in connection with, say, the colour green, the mind would be in a position to compare these representations and be able to distinguish the warmth as an appearance.³¹⁴

³¹³ A 104.

³¹⁴ If this is so, then it is fairly easy to see that the unity in our representations in general, and not only in our conceptual representations, is

From where Kant stands, there is nothing wrong with Tetens' analysis up to this point. However, Tetens also thought that at some point, the human mind will simply be able to distinguish the self from the objects it perceives, and this is where Kant thought that he erred. The reason for this is that according to Kant, the representation of an object outside the power of representation cannot arise in the same manner in which a representation of an appearance arises, because a representation of the object that is to be distinguished from the self, cannot arise through mere comparison of intuitions. In Reflection 5643 Kant says that we know (*kennen*) an object only as a something in general, for which the given intuitions are only predicates, and that how these intuitions can be predicates to this third (the object) cannot be cognized through the comparison of these intuitions, but only through the way that the consciousness of the manifold in general can be seen as necessarily combined in one consciousness.³¹⁵ Thus, the distinguishing between objects and ourselves is not reducible to the act of distinguishing objects from each other, and apperception cannot arise through the same acts through which awareness of objects does.

We should, then, carry the analysis of the mind's faculties further in order to learn about the requirements of a representation of an object of cognition, and for this we first need to consider what that object is. Kant argues that since appearances themselves

prior to those empirical representations that the empirical imagination uses. If my empirical imagination can reproduce an appearance on the occasion of the colour red, then the actuality of this action presupposes a faculty of representing unities, which, in the case of the colour red, can only be spatial. Thus, our empirical use of imagination presupposes the ability to represent empirical manifolds in units of space (and time). In other words, the availability of the empirical matter for reproduction presupposes the ability to combine a manifold of empirical matter (of a more elementary nature) in an *a priori* representation. This was one of the lessons of the discussion on the synthesis of reproduction.

³¹⁵ Ak. 18:283.

are nothing but sensible representations and since outside of our cognition we have nothing that we could set over against our cognition as corresponding to it, the object must be thought of only as something in general = X.³¹⁶ Further, our thought of the relation of all cognition to its object “carries something of necessity with it”,³¹⁷ because our cognitions must agree with each other. Consequently, our cognitions must have a unity that constitutes the concept of an object.³¹⁸ From this fact Kant can begin his analysis of the pure use of the understanding in cognition.

Let us first consider what he has accomplished so far in the Subjective Deduction. By using the pure concept of a number as an example Kant has shown that a pure concept presupposes a unity of consciousness in the reproduction of an *a priori* manifold. He has also shown that representing an object of cognition presupposes a pure concept of an object, which, being a pure concept, requires a unity of consciousness in the reproduction of an *a priori* manifold. Representing an object therefore involves a pure synthesis of recognition in the concept of an object. As Kant had anticipated on page A 78 (B 103), we have now seen (in subsections 1 and 2) that synthesis in general is the mere effect of the imagination. In the third subsection, we are now about to see how this synthesis is brought to concepts. Kant has already informed us (on pages A 78–79/B 103–105) that pure synthesis, *generally represented*, yields the pure concept of the understanding. We have learned that even the mere synthesis of imagination is grounded on a pure synthesis, but in addition to the mere synthesis, a pure concept requires a consciousness of this pure synthesis. Under a pure concept the unity in the synthesis of the manifold becomes necessary, as the synthesis in accordance with concepts is a synthesis in accordance with a common ground of unity.

³¹⁶ A 104.

³¹⁷ Ibid.

³¹⁸ Ibid.

Now, transcendental logic teaches how to bring the pure synthesis of representations to concepts. I remind the reader of what Kant said in the *Leitfaden*:

The first thing that must be given to us *a priori* for the cognition of all objects is the *manifold* of pure intuition; the *synthesis* of this manifold by means of the imagination is the second thing, but it still does not yield cognition. The concepts that give this pure synthesis *unity*, and that consist solely in the representation of this necessary synthetic unity, are the third thing necessary for cognition of an object that comes before us, and they depend on the understanding.³¹⁹

The concepts that constitute the third requirement are representations of unity, and an object of cognition presupposes a thought of something as an object, which, in turn, presupposes a concept of an object. Now, Kant argues that since that something (the X) that is required for cognition of an object, cannot be a representation, and therefore is nothing for us, the unity required for the concept of an object can be nothing other than the formal unity of the consciousness in the synthesis of the manifold of our representations.³²⁰ Conceptual cognition requires a unity of consciousness in the reproduction of the manifold of intuition, and cognizing an object thus means that we have effected synthetic unity in the manifold of intuition.³²¹

Analysing this conclusion will reveal us the nature of the unity of the pure synthesis. Kant begins this analysis by the following:

But this is impossible if the intuition could not have been produced through a function of synthesis in accordance with a

³¹⁹ A 78–79 / B 104.

³²⁰ A 78–79 / B 104.

³²¹ A 105.

rule that makes the reproduction of the *a priori* manifold necessary and a concept in which this manifold is united possible.³²²

Kant illustrates this with an example:

Thus we think of a triangle as an object by being conscious of the composition of three straight lines in accordance with a rule according to which such an intuition can always be exhibited.³²³

In this example, we have an intuition of a triangle that has as its components the intuitions of three straight lines. In order to think the triangle as an object the object has to be produced through a function of synthesis. By a function Kant means “the unity of the action of ordering different representations under a common one”.³²⁴ In the thought of a triangle an *a priori* manifold is ordered under the pure sensible concept of a triangle and the unity of this action presupposes a reproduction of the manifold. Indeed, it requires a transcendental reproduction, although this is left without mention, probably because it should be obvious. It also makes the concept possible, because the concept consists in the representation of this necessary synthetic unity.³²⁵

The intuition that must be produced for cognition (here the triangle), thus presupposes a unity of the action of synthesis in

³²² A 105. Guyer and Wood translate “manifold necessary *a priori*”. This is misleading, because Kant is here concerned with how the pure synthesis of representations is brought to concepts. The requirements for this are the manifold of pure intuition, the synthesis of this manifold, and finally, the concepts that give this pure synthesis unity. See A 78–79 / B 104.

³²³ A 105.

³²⁴ A 68 / B 93.

³²⁵ A 79 / B 104.

accordance with a rule, and according to this rule, this intuition “can always be exhibited”. This implies a unity of the rule:

Now this *unity of rule* determines all the manifold, and limits it to conditions that make the unity of apperception possible, and the concept of this unity is the representation of the object = X, which I think through those predicates of a triangle.³²⁶

We should pause here, because there are so many unities involved that it is getting difficult to keep track of them. In order to see where Kant is heading, we should first turn our attention to the unity of apperception. The unity of apperception that is made possible by the unity of rule is the unity of the empirical apperception of the triangle when I think this object through the predicates of the three straight lines.³²⁷ The intuited triangle is a modification of the mind represented in inner sense. Two paragraphs later Kant will tell us that although empirical apperception and inner sense are customarily taken to be the same, it is vitally important to understand that they are not. As Kant emphasized at the beginning of the first subsection, as modifications of the mind all our representations belong to inner sense. On the other hand, our acquaintance with appearances does not involve apperception, for intuition by no means requires the functions of the understanding, as Kant noted on page A 91 (B 123).

When I think of a triangle I have to produce an intuition of a triangle whereby I become conscious of this intuition in me – I cognize it – and this consciousness, as the product of my cognitive act, is a unity of apperception. This thought is possible through a function of synthesis in accordance with a rule, and the

³²⁶ A 105, translation modified

³²⁷ A thought of a triangle does not, of course, require affection through outer sense, but we can use the term ‘empirical apperception’ here without confusion. What matters is that the apperception is not transcendental.

unity of this rule determines the manifold of the *a priori* intuition (the three straight lines). Now that I have the concept of a triangle I can use it as a predicate for judgements, e.g. for the judgement “Every triangle is a polygon.” In this judgement, the concept of polygon is related to various concepts, and here particularly to the concept of a triangle: it stands under the concept of a polygon.

But I can, of course, think something in my empirical intuition as a triangle, say that triangle shaped piece of paper that one of my daughters has clipped out of a sheet and left lying on the floor. In this case, the piece of paper, i.e. an intuition, stands under the concept of triangle. This, that is, the relation of a concept to an appearance, is what interests us here.

A concept, Kant continues, is something that serves as a rule:

All cognition requires a concept, however imperfect or obscure it may be; but as far as its form is concerned the latter is always something general, and something that serves as a rule.³²⁸

In the Transcendental Aesthetic Kant analysed the representation of a body by abstracting from all that which the understanding thinks about it. There Kant found out that besides that which belongs to sensation that representation contains something that belongs to pure intuition. Here is the place to take into scrutiny that which the understanding thinks about it through the concept of a body. This concept brings with it necessity:

Thus the concept of body serves as a rule for our cognition of outer appearances by means of the unity of the manifold that is thought through it. However, it can be a rule of intuitions only in so far as it represents in given appearances the necessary reproduction of their manifold, hence the synthetic unity

³²⁸ A 106.

in the consciousness of them. Thus in the case of the perception of something outside of us the concept of body makes necessary the representation of extension, and with that of impenetrability, of shape, etc.³²⁹

In thinking the piece of paper as a triangle I have a thought of its shape. But this commits me to the thought that this piece of paper has an extension. I think it as a body and this brings with it all those concepts that have the concept of body under them. If the piece of paper stands under the concept of body, it also stands under the concept of divisible. Thus, if I think this piece of paper (a body) as triangle-shaped, I also think it as divisible, although divisibility is not clearly represented in my thought. If I were to tell my six-year-old daughter that there is a piece of paper on the floor that is not divisible, she would not have to come and inspect the piece of paper to be able to decide whether my claim is true. She would know that this object is divisible and that I am only kidding. The piece of paper contains a manifold of representations that stand under the concept of body, and when I represent the piece of paper in my thought, the concept of body represents the necessary reproduction of its manifold and thereby its synthetic unity.

Now, the synthetic unity in the consciousness of outer appearances is the empirical apperception of them. But as this apperception involves a necessity, it must have a transcendental ground:

Every necessity has a transcendental condition as its ground. A transcendental ground for the unity of the consciousness in the synthesis of the manifold of all our intuitions, hence also of the concepts of objects in general, consequently also of all objects of experience, without which it would be impossible to think of any object for our intuitions; for the latter is noth-

³²⁹ A 106, translation modified.

ing more than the something for which the concept expresses such a necessity of synthesis.³³⁰

This transcendental condition is, according to Kant, the transcendental apperception. The empirical apperception, i.e. the “consciousness of oneself in accordance with the determinations of our state in internal perception”, is forever variable, and cannot therefore make experience possible.³³¹ There must be a transcendental self-consciousness, because the empirical self-consciousness presupposes a necessary reproduction of representations. To see how the transcendental apperception makes empirical apperception possible, we need to see how it makes concepts possible:

Now no cognitions can occur in us, no connection and unity of them under one another, without that unity of consciousness that precedes all data of the intuitions, and in relation to which all representation of objects is alone possible.³³²

The transcendental unity of apperception is the necessary requirement of all conceptual unity because it necessarily grounds the action of ordering different representations under a common one. It precedes all data of the intuitions in cognizing an object of thought in that it is that consciousness that recognises representations in the reproduction of the manifold of intuition in the act that produces the empirical apperception. An intuition, i.e. an appearance, must, of course, already be available, i.e. given, for thought but in the act of thought the transcendental apperception precedes the data of the intuition, because the empirical synthetic unity in the manifold of intuition presupposes this transcendental

³³⁰ A 106.

³³¹ A 106–107.

³³² A 107, translation modified.

consciousness in the production of the intuition through a function of synthesis in accordance with a rule. Thus it makes the concept in which this manifold is united possible.

Even the unity of the concepts of space and time, Kant adds, is possible only through the relation of the intuitions to the transcendental apperception. It was shown in the second subsection that the pure intuitions of space and time can provide cognition only through a transcendental reproduction of the *a priori* manifold, and now it has been shown that in addition to this, the unity of the concepts of space and time depends on apperception, which therefore must be named transcendental.³³³ It was also shown in the second subsection that even the most fundamental representations of space and time depend on the transcendental reproduction. Consequently, as nothing can appear to us except in space and time, both our acquaintance with appearances and our cognition of them depend on the transcendental use of imagination.

The following conclusion can now be drawn:

The numerical unity of this apperception therefore grounds all concepts *a priori*, just as the manifoldness of space and time grounds the intuitions of sensibility.³³⁴

What this passage effectively says is that the transcendental use of apperception is a condition of all subordination just as the transcendental use of sense is a condition of all coordination of representations. And as we just noted, both coordination and subordination depend on the transcendental use of imagination. Kant has thus traced cognitive action back to those three original sources of cognition that cannot be reduced to any other capacity of the mind. He has also shown that both the acquaintance with

³³³ A 107.

³³⁴ A 107.

appearances in mere intuition and the apperception of them in experience depend on the transcendental reproduction. Now we still have to examine how subordination and coordination are related to each other.

It has been shown that all concepts depend on transcendental apperception. But its use goes beyond this:

Just this transcendental unity of apperception, however, makes out of all possible appearances that can ever come together in one experience a connection of all these representations in accordance with laws.³³⁵

Thus, not only do the appearances, when they are thought as objects of experience, depend on the transcendental unity of apperception but also their lawlike interconnection. This point is expounded by the following sentences, which I quote at length:

For this unity of consciousness would be impossible if in the cognition of the manifold the mind could not become conscious of the identity of the function by means of which this manifold is synthetically combined into one cognition. Thus the original and necessary consciousness of the identity of oneself is at the same time a consciousness of an equally necessary unity of the synthesis of all appearances in accordance with concepts, i.e., in accordance with rules that not only make them necessarily reproducible, but also thereby determine an object for their intuition, i.e., the concept of something in which they are necessarily connected; for the mind could not possibly think of the identity of itself in the manifoldness of its representations, and indeed think this *a priori*, if it did not have before its eyes the identity of its action, which subjects all synthesis of apprehension (which is empirical) to a transcendental unity, and first makes possible their connection in accordance with *a priori* rules.³³⁶

³³⁵ A 108.

³³⁶ A 108.

Let me first try to paraphrase the beginning of this quote. This connection of possible appearances in accordance with laws (i.e., “this unity of consciousness”) would be impossible if the mind could not become conscious of the identity of the unity of the action by means of which it combines the manifold synthetically into one cognition, i.e. to a conceptual representation of the spatiotemporal world. This necessary transcendental unity of consciousness of the identity of oneself (in the action of synthesis) is therefore at the same time a consciousness of a necessary unity of the synthesis of all appearances in accordance with *concepts*.

The essential point Kant makes here is that the connection of appearances is a *represented connection*, not a subjective connection of appearances in empirical imagination, which yields no representation of the relation. When I represent an appearance in mere intuition, this may certainly occasion the reproduction of some other appearance in my imagination, which presupposes a subjective connection between these appearances, but in mere intuition my reproduction cannot result in a *representation* of the connection between these appearances. The connection must be conceptual and the unity of consciousness in that representation would be impossible without consciousness of the unity of synthesis of all appearances in accordance with a rule that makes those appearances necessarily reproducible. Recall that the reproducibility of appearances depends on a pure transcendental synthesis of imagination, which makes the synthesis of apprehension possible and implies an *a priori* rule.

In the representation of the connection of appearances all synthesis of apprehension is subjected to a transcendental unity, which first makes possible this connection in accordance with *a priori* rules. This transcendental unity is what gives objecthood to the thought, and in this thought the mind must represent the identity of this action. In order to represent the connection of appearances these appearances must be apprehended, which is possible only under an *a priori* rule. The representation of the identity of

the action of the mind that subjects this apprehension to a transcendental unity, is a necessary requirement of the empirical consciousness of the identity of itself (e.g. when *I* remember a flower *I* once saw).

What this objecthood consists in, may now be examined:

Further, we are now also able to determine our concept of an *object* in general more correctly. All representations, as representations, have their object, and can themselves be objects of other representations in turn. Appearances are the only objects that can be given to us immediately, and that in them which is immediately related to the object is called intuition. However, these appearances are not things in themselves, but themselves only representations, which in turn have their object, which cannot be further intuited by us, and that may therefore be called the non-empirical, i.e., transcendental object = X.³³⁷

Kant here outlines the conception of sensible representation which he inherited from Tetens. When I think of the piece of paper on the floor as triangle-shaped, I represent an object through the appearance. But the appearance, in turn, is an (undetermined) object of my empirical intuition, so my cognition (in the proper sense) presupposes more than one act of representing an object. I remind the reader that Tetens' conception of inner sense enables this. According to that conception the mind is able to use its represented objects as representations and represent other objects through them. From the side of the object, or rather, from the side of the consciousness of the object, this means that consciousness can be consciousness of a consciousness, for consciousness is a representation that another representation is in me.³³⁸ Thus, consciousness of an object of experience (i.e. con-

³³⁷ A 108–109.

³³⁸ *Logik Jäsche*, Ak. 9:33.

sciousness of a conceptually determined object of an intuition) presupposes consciousness of an appearance.

However, one should not draw the conclusion that the common function that grounds the interconnection of substances is responsible for the representation of appearances in mere intuition, for this function grounds subordination, not coordination (but as we shall see, these acts are based on the same *a priori* rules of synthesis). Thus, when we look at this process from the side of the mind representing an object, we see that the move from intuitive synthesis to the synthesis required for thinking requires a new kind of representing an object. This is the reason why Tetens' view that consciousness of the self arises from the same kind of act of distinguishing from which the consciousness of the appearances arises, must be mistaken. The appearances are nothing but representations, which in thinking are used for representing an object, but this object we cannot intuit, and the ground of unity for representing an object provided by space and time is left behind.

The objecthood needed for cognition of objects of experience can now be analysed further:

The pure concept of this transcendental object (which in all of our cognitions is really always one and the same = X) is that which in all of our empirical concepts in general can provide relation to an object, i.e., objective reality. Now this concept cannot contain any determinate intuition at all, and therefore concerns nothing but that unity which must be encountered in a manifold of cognition insofar as it stands in relation to an object.³³⁹

The transcendental unity to which all synthesis of apprehension is subjected is what makes possible the representation of the transcendental object, and the pure concept of this transcen-

³³⁹ A 109.

dental object is what provides our empirical concepts with a relation to an object. The representation of the identity of the action, which, as we have seen, follows an *a priori* rule of synthesis, is possible only if the mind can represent the unity of this rule. This unity is, according to the *Leitfaden*, the pure concept which gives unity to pure synthesis and which must be given to us *a priori* for the cognition of all objects.³⁴⁰ So the *a priori* concepts that consist solely in the representation of this necessary synthetic unity of the *a priori* manifold depend on the transcendental apperception, because the latter is what gives the necessary synthetic unity its unity.

Further, based on the findings of the *Leitfaden* we know that the same function that gives unity to concepts in a judgement also gives unity to this synthesis, and that these pure concepts are the categories. Thus, as the world of experience is a whole consisting of interconnected substances, my experience would not be possible without those *a priori* concepts – the categories – through which the I is conscious of their interconnection.

I hope that a comparison with the view Kant had held three decades earlier will provide some illumination here: In the *Nova dilucidatio* Kant states that finite substances stand in a relationship with each other and are linked together by interaction only “in so far as the common principle of their existence, namely the divine understanding, maintains them in a state of harmony in their reciprocal relations.”³⁴¹ Kant argues that as all the things in the universe are found to be reciprocally connected with each other, and since on the one hand each individual substance has an existence which is independent of other substances, and on the other hand finite beings cannot be the causes of other substances, it follows that this reciprocal connection depends on a “communality of cause”, namely on God.³⁴² Kant thinks that he is the first

³⁴⁰ A 78–79 / B 104.

³⁴¹ Ak. 1: 412–413.

³⁴² Ak. 1:413.

to have established that a community of origin is required for a connection between substances. For it does not follow, says Kant,

from the fact that God simply established the existence of things that there is also a reciprocal relation between those things, unless the self-same scheme of the divine understanding, which gives existence, also established the relations of things to each other, by conceiving their existences as correlated with each other. It is most clearly apparent from this that the universal interaction of all things is to be ascribed to the concept alone of this divine idea.³⁴³

It is almost stunning to see such consistency of thought reaching over decades and persisting through different metaphysical positions. For, *mutatis mutandis*, Kant's view has remained the same. Kant's mature view is that it is not God's (*a priori*) concept of a scheme, as a communality of cause, that grounds the reciprocal connection between substances, but the concept of an *a priori* rule, a common function, inherent in the mind of the subject that does. The mind has "before its eyes the identity of its action, which subjects all synthesis of apprehension (which is empirical) to a transcendental unity".

It is here important to understand that the empirical synthesis of apprehension takes place independently of this act. Indeed, if it did not, the common function of the understanding "would never get to do anything suitable to its capacity" (if I may borrow Kant's own phrase from the second subsection). For consider the transcendental grounds of empirical imagination and empirical apperception. Empirical imagination presupposes that the appearances are subject to a rule. In terms of the *a priori* component of cognition we may put the matter as follows: The synthesis of apprehension presupposes a transcendental reproduction of representations. Empirical apperception, on the other hand,

³⁴³ Ak. 1:413.

presupposes recognition, i.e. consciousness of this transcendental reproduction, and therefore transcendental apperception. But we could not become conscious of this reproduction without first representing appearances. In other words, the empirical use of imagination is the only path to the use of a discursive understanding, which must use sensibility for its cognition of objects.

Now that Kant has determined the concept of an object more correctly, I am in a position to explain more clearly my claim that Kant did not think that the prior act could be characterized by direction toward an object. Unlike Brentano, Kant does not think that every mental phenomenon “contains in itself something as an object”.³⁴⁴ The prior act, Kant thinks, is an act of synthesis, and the representation to which it is directed contains both an empirical manifold (impressions) and a pure manifold (space). That representation is a modification of outer sense but despite containing a pure manifold of space it does not contain even the most fundamental quality of an object: shape. Shape cannot be represented without synthesis, and the act of synthesis produces a modification not in outer but in inner sense. The latter modification is an undetermined object but the act of representation does not contain this object. Rather, the act affects inner sense, and the product of that affection is the object. The product is not an idea of an object but the object itself. That is what Kant means by claiming that appearances are given to us immediately. There is no mediating idea between the act and the appearance.

But as Kant says, “these appearances are not things in themselves, but themselves only representations, which in turn have their object.” Appearances can have their object by means of the posterior act, and that act can be characterized by direction toward an object. I will postpone discussion on the nature of this act until chapters 7 and 9, but I emphasize here that although the posterior act gives intentionality to cognition, it still does not

³⁴⁴ See Brentano, *Psychologie*, 115.

involve ideas. As Kant says, the object is really always the same, so the posterior act merely represents the empirical object as something outside the self. It thereby also produces empirical apperception of the self, i.e. distinguishes the self from outer objects. In other words, it does not produce ideas of particular objects, because those objects are products of the prior act of cognition.

But let us return to Kant's text. We are finally in a position to reach the conclusion of the third subsection. The pure concept of the transcendental object, Kant says,

concerns nothing but that unity which must be encountered in any manifold of cognition insofar as it stands in relation to an object. This relation, however, is nothing other than the necessary unity of consciousness, thus also of the synthesis of the manifold through a common function of the mind for combining it in one representation.³⁴⁵

We can see now that the third requirement (discussed above) for cognition of all objects, i.e. the concepts that give unity to pure synthesis, provide the concept of the transcendental object, for the latter concerns the necessary unity of the synthesis of any manifold of cognition. Kant's point is that the concept of the transcendental object is a necessary requirement of a representation of the relation of any manifold to an object (e.g. in the representation of the *flower* I once saw). This is because this pure concept is that "which in all of our empirical concepts in general can provide relation to an object".³⁴⁶ This relation presupposes consciousness of the unity of the synthesis of this manifold (and thus also unity of consciousness). The conclusion thus is:

³⁴⁵ A 109, translation modified. The German original reads *in einem Mannigfaltigen der Erkenntnis*, which I have translated "in any manifold of cognition".

³⁴⁶ A 109.

Now since this unity must be regarded as necessary *a priori* (since the cognition would otherwise be without an object), the relation to a transcendental object, i.e., the objective reality of our empirical cognition, rests on the transcendental law that all appearances, insofar as objects are to be given to us through them, must stand under *a priori* rules of their synthetic unity, in accordance with which their relation in empirical intuition is alone possible, i.e., that in experience they must stand under conditions of the necessary unity of apperception just as in mere intuition they must stand under the formal conditions of space and time; indeed it is through those conditions that every cognition is first made possible.³⁴⁷

This conclusion is an answer to the question Kant posed on page A 89 (B 122): How should subjective conditions of thinking have objective validity? However, it seems not to be a full answer. Let us see what it does prove.

Remember how Tetens dealt with Hume's skepticism. He argued that the necessity we experience in the world truly is in those objects we perceive and that it is not a mere subjective necessity. Here Kant has given a proof for that. He has shown that in experience the appearances "must stand under conditions of the necessary unity of apperception", and since he has shown that those conditions are the categories, he has also shown that the appearances, "insofar as objects are to be given to us through them", i.e. given to thought, already contain the necessity we think in them through the categories. In other words, if we can subsume an empirical intuition under a concept, that intuition must necessarily be in accord with the categories, and Tetens' demand for a realization of the basic concepts has been answered: the categories (along with our pure sensible concepts) have real objects.

In the Transcendental Aesthetic Kant was able to show with little effort, as he reports, that space and time are "pure intui-

³⁴⁷ A 109–110.

tions that contain *a priori* the conditions of the possibility of objects as appearances, and the synthesis in them has objective validity.³⁴⁸ The fact that objects can appear only by means of these pure forms of sensibility was enough to prove the objective validity of the synthesis in them. Now he has shown that those appearances can represent objects of cognition only under the conditions of the necessary unity of apperception. These subjective conditions thus have objective reality, because – as Kant has now proved – the appearances, insofar as they are given to thought, cannot be “so constituted that the understanding would not find them in accord with the conditions of its unity”.³⁴⁹ This is because the common function of the understanding depends on the unity of those rules, in accordance with which the relation of appearances in intuition is alone possible.

It was noted above that the numerical unity of apperception “grounds all concepts *a priori*, just as the manifoldness of space and time grounds the intuitions of sensibility.” Now it has been shown that in experience the appearances “must stand under conditions of the necessary unity of apperception just as in mere intuition they must stand under the formal conditions of space and time”. The formal conditions of space and time consist in those *a priori* rules in accordance with which the relation of appearances in intuition is alone possible, and the conclusion is that the *a priori* rules of the synthetic unity of appearances in experience are those same rules. This shows the unavoidable connection of the transcendental apperception with the transcendental imagination in empirical cognition.

But has Kant managed to prove here exactly the same as he did in the Transcendental Aesthetic regarding our pure sensible concepts? There is reason for doubt. He has proved the objective validity of the concepts of space and time and the objective reality

³⁴⁸ A 89 / B 122.

³⁴⁹ See A 90 / B 123.

of the categories, but perhaps not the full validity of the latter. At least Kant's reader may still have doubts. To be able to explain what might not yet have been proved, I must first try to elaborate on what the proof of the objective reality is grounded.

5.5. Discussion on the Three Syntheses

I have above made use of the distinction between the relations of subordination and coordination; a distinction Kant does not use in the present context. I shall now try to explain how this distinction can help us to understand Kant's mature view of synthesis correctly, and I will begin by making reference to the *Inaugural Dissertation*, where this distinction does play a major role. The question that we must find an answer to is how mere acquaintance with appearances differs from experience. In the *Inaugural Dissertation* Kant explains this as follows:

[I]n the case of sensible things and phenomena, that which precedes the logical use of the understanding is called *appearance*, while the reflective cognition, which arises when several appearances are compared by the understanding, is called *experience*. Thus there is no way from appearance to experience except by reflection in accordance with the logical use of the understanding.³⁵⁰

The logical use of the understanding, Kant has explained before the quoted passage, is the use by which concepts are subordinated to each other and compared with one another in accordance with the principle of contradiction.³⁵¹ We can thus see that according to the *Inaugural Dissertation*, subordination necessari-

³⁵⁰ Ak. 2:394, § 5.

³⁵¹ Ak. 2:393, § 5.

ly pertains to experience. On the other hand, Kant says in the same text that

synthesis is either *qualitative*, in which case it is a progression through a series of *things which are subordinate to each other*, the progression advancing from the ground to that which is grounded, or the synthesis is *quantitative*, in which case it is a progression within a series of *things which are coordinate with each other*, the progression advancing from a given part, through parts complementary to it, to the whole.³⁵²

Now, at the time Kant wrote these passages he did not have in mind the act of synthesis of imagination we are presently concerned with, but nevertheless, we can learn something important from these statements, for although he did not yet have an answer to the problem of how a synthetic representation can relate to its object, he had already fixed his view on what distinguishes experience from mere appearance. Moreover, the form of the world of experience was already a central theme in Kant's thought, as we can see from the following:

We are contemplating the world in respect of its form, that is to say, in respect of how, in general, a connection between a plurality of substances comes to be, and how a totality between them is brought about.³⁵³

Here, in the *Critique*, two conclusions from the third subsection of the Subjective Deduction become crucial. The first of these conclusions is that the numerical unity of apperception “grounds all concepts *a priori*, just as the manifoldness of space and time grounds the intuitions of sensibility”. In other words, the transcendental use of sense on the one hand, and apperception on

³⁵² Ak. 2:388, § 1 note.

³⁵³ Ak. 2:407, § 16.

the other, belong among the original sources of cognition. This is because the *a priori* manifoldness of space and time is a condition of all co-ordinating synthesis of representations next to each other or after one another, and the transcendental apperception is a condition of all subordinating synthesis of representations under each other, i.e. of subsumption. But since mere appearances, although they necessarily require a synthesis, do not contain any subordination, whereas experience necessarily does, the objective validity of the categories cannot be proved on the basis of this conclusion alone. For that, we need to turn our eye on the syntheses behind subordination and coordination.

The second conclusion states that in experience appearances “must stand under conditions of the necessary unity of apperception just as in mere intuition they must stand under the formal conditions of space and time”. Paraphrased by Kant this conclusion says that in experience all appearances “must stand under *a priori* rules of their synthetic unity, in accordance with which their relation in empirical intuition is alone possible”. The *a priori* rules of subordination are thus the same rules that govern coordination, and the difference lies only in the ground of unity: space and time on the one hand and the numerical unity of the transcendental apperception on the other. In other words, whether we understand cognition as mere intuition (in the broad sense) or intuition and concept (in the narrow sense), it depends on the transcendental use of imagination. As we shall see, this conclusion is vital in proving the objective validity of the categories.

So what does all this mean in practice? Let me use the Lost Monarch as an example. An animal not endowed with apperception but capable of apprehension – let us suppose a squirrel is such an animal³⁵⁴ – could apprehend this tree, and this appre-

³⁵⁴ It seems that there are many species of animals that are actually self-conscious and that we humans are only one of those species. I merely suppose here that squirrels are not self-conscious – it may be a false assumption.

hension would involve a transcendental reproduction of its *a priori* manifold. Contrary to what Leibniz thought, this act would not require going through an infinite manifold, because the manifold that must be run through does not consist of 'petite' perceptions. The empirical matter cannot provide a unity needed for acquaintance with appearances, only an *a priori* manifold can, and the latter is not a manifold of simple parts. To see more clearly what Kant means by transcendental reproduction we should consider apprehension from the side of its result, i.e. the appearance. In his reply to Eberhard (*On a discovery*) Kant says that

each thing in space, each alteration in time, as soon as it occupies a portion of space and time, can be divided into just as many things or alterations as are the space or time which it occupies. In order to avoid the paradox that is felt in this connection (in that reason, which ultimately requires the simple as the foundation of all composites, contradicts what mathematics demonstrates with regard to sensory intuition), one can and must admit that space and time are merely things of thought and beings of imagination, which have not been invented by the latter, but must underlie all of its combinations and inventions because they are the essential form of our sensibility and the receptivity of our intuitions, whereby in general objects are given to us, and whose universal conditions are necessarily at the same time *a priori* conditions of the possibility of all objects of the senses, as appearances, and so must accord with them.³⁵⁵

From this, Kant concludes that the simple in temporal succession, as in space, is absolutely impossible. However, that is not all that we can learn from this passage. Space (time can be dealt with similar manner) is a being of imagination that must underlie all its combinations, and the essential form whereby objects are given to us. Although each thing in space, "as soon as it

³⁵⁵ Ak. 8:202–203.

occupies a portion of space” can be divided *ad infinitum*, the combination of the imagination that is required for it to occupy that portion of space, does not involve an infinite manifold of parts combined together.³⁵⁶ Apprehension may well involve apprehension of partial representations, but it is not dependent on them. For how does one distinguish those parts? The answer is: by means of the space they occupy. Recall that the synthesis of apprehension begins with distinguishing not the empirical matter but “the time in the succession of impressions on one another”. On the most fundamental level, then, apprehension depends on the ability to combine past representations of space with the present representation of space. In other words, it depends on a reproduction that is presupposed by all empirical reproduction. The impressions of the senses are represented in space, which is the essential form of our receptivity, but the mind must be able to reproduce past impressions in one location and combine them with present impressions in another location in order to be able to represent any object as appearance.³⁵⁷ A representation of an appearance in space (and consequently a representation of space as a being of imagination) thus presupposes the ability to distinguish time, but through this act, the mind does not yet represent time, for the latter representation depends on the ability to represent some change in space.

Now, supposing that a squirrel can represent appearances in space, and thus represent shapes, its mind will be capable of

³⁵⁶ It may be useful to compare the act of apprehending a shape with drawing a figure, a circle for instance, on paper. This act produces a two-dimensional portion of the paper but it does not consist of adding parts of the paper together, and the duration of the act is finite.

³⁵⁷ One may here consider looking at some part of an object and then moving one’s eyes so that the eyes are fixed on some other part of the same object. The two visual fields are completely different and nothing empirical alone could inform the mind that the impressions at these two different moments are from the same object. Without transcendental reproduction, there would be no unity of representation.

empirically reproducing those shapes, the shape of a leaf for example. If it can learn to associate a leaf with some other appearance, say a leaf of a *Quercus alba* with the acorns of the tree, it will have to be able to have a rule for imagining the shape of the leaf of this species. It may thus also be able to distinguish the shape of this leaf from that of the leaf of a *Quercus rubra*. It cannot become conscious of this rule (because we assumed that it has no apperception) and hence it has no empirical concept of those leaves, but this rule it must have, if it can distinguish between those shapes. However, it must also have more fundamental rules. Suppose that the squirrel sees an oak it is familiar with, and that the oak suffers from chlorosis causing spotted leaves, which it did not have before. The squirrel thus sees spotted leaves with which the representation of an acorn has not been associated. In order to be able to reproduce a representation of an acorn on the occasion of a spotted leaf it must have an *a priori* rule for representing something (a yellowish spot) in something (a leaf that persists in time).³⁵⁸ Representing the leaf *as* the same leaf that previously did not have the spots would require apperception, but the ability to keep reproducing a representation of an acorn on the occasion of the spotted leaf, even though this reproduction previously occurred on the occasion of a leaf without the spots, does not. In conclusion, the squirrel does not, according to our assumption, have categories but it must have the *a priori* rules of synthesis behind the categories.

I should perhaps also note here that apprehension depends on circumstances and may differ among individuals and through time.³⁵⁹ In other words, whether some information is relevant to the subject may vary. There may have been yellowish spots in the leaf before, and the squirrel just may not have noticed them. Still

³⁵⁸ A 142–143 / B 182.

³⁵⁹ Another thing that should be noted is that once the basics of apprehending have been learned the empirical imagination does most of the job in our everyday lives, or in the life of the squirrel, for that matter.

it could keep the associations it had before, for even though the representation of a leaf is a singular intuition, it need not be distinct. Consider what happens if the squirrel now notices those spots. On the one hand, it means that something new is added to the representation of this appearance. On the other hand, it also means that those spots are apprehended as appearances. This is possible because the apprehension of the leaf is not grounded on the apprehension of its partial representations but on the apprehension of an *a priori* manifold.

Suppose now that the squirrel has noticed the spots on the leaf. The representation of the leaf has changed but clearly the object is the same and the yellow spots inhere in the leaf already familiar to the squirrel. If the object were not the same for the squirrel, all the subjective associations between the leaf and other appearances would be lost and the squirrel would have to learn again to associate the leaf with the acorns. In fact, to the squirrel's disadvantage, the ability to do this would also be lost, and the capacity for empirical reproduction, if it had one, would remain hidden in the interior of its mind. For the leaf is never exactly the same: it is viewed from different angles, under different lighting conditions, etc. The conclusion then is, not that the squirrel is an automaton, but that the synthesis of imagination is grounded on *a priori* principles "even prior to all experience". Although the squirrel's apprehension of the leaf does not involve apperception, the objecthood of the appearance depends on *a priori* principles.

Now, what we need to understand in transcendental logic is the difference in the synthesis required for apprehension of appearances on the one hand and the synthesis required for cognizing an object of *experience* on the other. Think of the Lost Monarch and the squirrel. The squirrel could, for instance, learn to associate the tree with shelter and it could even individuate the tree on the basis of its spatial location and thus differentiate it from other trees. But it could not *recognize* the tree because it

could not be conscious of the sameness of its present representation of that particular tree with a reproduced representation of it.

We, on the other hand, are capable of this and we can assign an object for our appearances. This object, however, is always the same. Our understanding does not transform the spatio-temporal world into a world of thought, it merely performs acts of thought on the appearances we apprehend. Thus, Kant's point is not of course that there is only one object in the world. The objects are many, but we can cognize them as objects of thought only through an act of apperception, and we cannot simultaneously perform multiple acts of thought. Moreover, the objecthood of our thought consists merely in the unity of apperception. In the Reflection 5643, to which I referred above, Kant says that that which is determined with regard to the functions of judgements, is the object, and that the categories are concepts for determining the objects of our cognition in general, insofar as the intuition has been given to it.³⁶⁰ When I think something in my perceptual awareness as, say, a triangle, I have an appearance given for thought. My thought of a triangle requires the use of categories, e.g. the category of totality (there are three straight lines as predicates of it), and the categories are "principles for making out of appearance experience, which is purely objective, i.e. universally valid empirical cognition," by determining an object of cognition.³⁶¹ The appearance is a modification of the mind and consequently belongs to inner sense but without my thought there is no unity of apperception concerning this appearance and no object outside my power of representation, i.e. no object of experience.

³⁶⁰ Ak. 18:283.

³⁶¹ See Reflection 5644, Ak. 18:283.

5.6. The Conclusion of the Subjective Deduction

Kant's view-point in explaining the three syntheses is from conceptual cognition. The Subjective Deduction is an analysis of experience. Its starting-point is empirical consciousness and it investigates the subjective sources of that consciousness. However, I argued above that in the first two subsections his purpose was not only to show that our conceptual cognition requires a transcendental synthesis in intuition but also that the mere intuitive cognition, the one a squirrel is capable of, requires such a synthesis. Nevertheless, the Subjective Deduction considers appearances only "insofar as objects are to be given to us through them", and it is supposed to show that in that respect, in other words as objects of experience, they are necessarily such that the categories apply to them. The categories have real objects in those appearances that we can recognize.

On the other hand, when we take into consideration what I discussed in the previous section, the discussion on the three syntheses seems to leave open the possibility that the animal in us could represent something unexplainable. It might be possible that there are appearances and happenings in space and time that we can merely reproduce but not recognize, in which case those appearances could affect our behaviour without our knowing it. There could be events that do not have a cause, for instance. We just could not grasp them with our conceptual faculty – we could not understand those events.

Thus, the Subjective Deduction seems not to prove that the categories are valid for all possible objects that may come before our senses.³⁶² It only shows that they are valid for those appearances that we can recognize and thus understand. With this in mind, we can move on to the fourth subsection where the dis-

³⁶² In the B edition Kant expressly states that this is what he wants to prove. See B 159.

inction between animal-like acquaintance with objects on the one hand, and human perception on the other, becomes important.

From the discussion so far it is clear that there is a parallel between the findings of the Transcendental Aesthetic on one hand and the Subjective Deduction on the other. We have reached the conclusion that in experience the appearances must stand under conditions of the necessary unity of apperception just as in mere intuition they must stand under the formal conditions of space and time. Kant begins the fourth subsection by comparing experience with space and time:

There is only *one* experience, in which all perceptions are represented as in thoroughgoing and lawlike connection, just as there is only one space and time, in which all forms of appearance and all relation of being and non-being take place. If one speaks of different experiences, they are only so many perceptions insofar as they belong to one and the same universal experience. The thoroughgoing and synthetic unity of perceptions is precisely what constitutes the form of experience, and it is nothing other than the synthetic unity of the appearances in accordance with concepts.³⁶³

In the *Dissertation* Kant left room for the possibility that there might be multiple worlds. In the present context this possibility becomes irrelevant, because we are now concerned only with our experience of a world. Through sensible intuition only one world can be experienced, and the experience itself cannot be dispersed.

Now let us compare the statement that by different experiences one can only mean perceptions belonging to one and the same universal experience, with the statement that different spaces (or times) must be understood as parts of one and the same unique space (or time). In the Transcendental Aesthetic Kant says

³⁶³ A 110.

that “these parts cannot as it were precede the single all-encompassing space as its components (which would make its composition possible), and that these parts are only thought in it.”³⁶⁴ Now think of different experiences. These perceptions, as cognitions, cannot as it were precede the one experience either. Think further that the representations of one space and one time are conceptual representations whereas the appearances as mere intuitions are not. Nevertheless, space and time contain the conditions of the appearances. How is this possible? It is possible because space and time that ground our intuitions are not representations of space and time but rather constitute one of the original sources of cognition – the transcendental use of sense – which provides us (with the help of the original source of transcendental imagination and empirical matter, of course) with appearances whose relations of being and non-being take place in one space and one time. In a similar fashion, the transcendental use of apperception (with the help of transcendental imagination) provides us with the reciprocal connection of the objects of experience.

Thus, as Kant says, the thoroughgoing and synthetic unity of perceptions is what constitutes the form of experience. In intuition appearances cannot have a thoroughgoing unity, because without apperception we cannot be conscious of the connection between appearances: we can only reproduce them empirically. The thoroughgoing unity must be a synthetic unity in accordance with concepts. As this unity of synthesis according to concepts cannot be grounded on empirical concepts (because the unity would then be contingent, and experience would be impossible), the unity of synthesis that makes experience possible must be a unity of synthesis in accordance with pure concepts. The conclusion then is:

³⁶⁴ A 25 / B 39.

The *a priori* conditions of a possible experience in general are at the same time conditions of the possibility of the objects of experience. Now I assert that the *categories* that have just been adduced are nothing other than the *conditions of thinking in a possible experience*, just as *space* and *time* contain the *conditions of the intuition* for the very same thing.³⁶⁵

Earlier it was said that the thoroughgoing and lawlike connection between appearances depends on the conditions of the transcendental apperception, so Kant concludes that just as the concepts of space and time have objective validity, so do the categories, for the categories represent the conditions of transcendental apperception.

Kant indicates here that it has been proved that the categories have objective validity. Nevertheless, he says in the Preface that the Subjective Deduction does not belong essentially to his chief end and that it is the Objective Deduction that is “supposed to demonstrate and make comprehensible the objective validity” of the categories.³⁶⁶ It seems that the Subjective Deduction does not show the full scope of the validity of the categories. As Kant indicated in the third subsection, he has proved the objective reality of the categories, and now, since it has been shown that the objects belonging to the world we experience depend on the categories, the objective validity of the categories in regard to that world has also been proved. However, since the Subjective Deduction is an analysis of the faculty of thought, it can only analyse the conditions of thinking those appearances that can be given to thought. What it cannot prove is that there are no appearances that cannot be thought.

So this is the way we should read the conclusion of the Subjective Deduction:

³⁶⁵ A 111.

³⁶⁶ A XVI.

They are therefore also fundamental concepts for thinking objects in general for the appearances, and they therefore have *a priori* objective validity, which was just what we really wanted to know.³⁶⁷

The categories are concepts for thinking objects in general, and by means of them we think objects *for the appearances*, which themselves are undetermined objects and independent of the use of the categories. In the Subjective Deduction Kant seems to say that the categories are objective valid if they apply to all objects of experience, and that since experience is created by means of thinking the appearances through the categories, their validity has been proved. However, Kant seems to have a different conception of the problem of objective validity in § 26 of the B Deduction, where he says he wants to explain the “possibility of cognizing *a priori through categories* whatever objects *may come before our senses*”.³⁶⁸ Since the appearances are independent of the categories and they are what come before our senses, the Subjective Deduction cannot exclude the possibility of something incapable of being thought coming before our senses.

In the remaining part of the subsection four, Kant continues to elaborate on what human experience is and how it presupposes the categories. Here is how he starts this elaboration:

However, the possibility, indeed even the necessity of these categories rests on the relation that the entire sensibility, and with it also all possible appearances, have to the original apprehension, in which everything is necessarily in agreement with the conditions of the thoroughgoing unity of self-consciousness, i.e., must stand under universal functions of synthesis, namely of the synthesis in accordance with con-

³⁶⁷ A 111.

³⁶⁸ B 159.

cepts, as that in which alone apperception can demonstrate *a priori* its thoroughgoing and necessary identity.³⁶⁹

The beginning of this quote can be interpreted in two ways. By the word *aber* (“however”) Kant seems to contrast what he says in it with what he has said before, and it could be that he is here contrasting his conclusion, which rests on an analysis of the faculty of thinking, with the whole cognitive capacity. If that is what he intends to do, then what he means to say is that although what has been proved so far is the objective validity of the categories only in the limited scope, the possibility of those categories rests on the relation that the *entire* sensibility and *all possible* appearances have to the original apperception. This is true, because we would not have the categories without our ability to represent appearances, i.e. the animal perception. Interpreted this way, Kant is in effect alluding to the Objective Deduction, where it will be shown that there are no possible appearances incapable of being thought, and to the Schematism where he explains how sensibility is connected to the understanding. In fact, how he continues seems to support this interpretation:

Thus the concept of a cause is nothing other than a synthesis (of that which follows in the temporal series with other appearances) *in accordance with concepts*; and without that sort of unity, which has its rule *a priori*, and which subjects the appearances to itself, thoroughgoing and universal, hence necessary unity of consciousness would not be encountered in the manifold perceptions.³⁷⁰

In the Schematism Kant will explain how concepts are related to the rules of productive imagination, and here Kant touches on this issue. A category is a synthesis in accordance with con-

³⁶⁹ A 111–112.

³⁷⁰ A 112.

cepts, and the unity (provided by apperception) of the *a priori* rules subjects the appearances (whose unity belongs to space and time) to itself. This is a plausible interpretation because Kant has already presented all the material necessary for the Objective Deduction.

On the other hand, a genuine contrast may not be intended by the word “however”. By the expressions “entire sensibility” and “all possible appearances” Kant may mean to refer to the possible appearances in experience and hence use the expressions in a limited sense. That would seem to be a plausible interpretation as well. Although I am inclined to think that the former interpretation is correct and that these considerations complete the Subjective Deduction, I do not see any significant consequences that would force us to make a decision here, because in the Objective Deduction the matter will be decided.

The remaining part of the above quote and the whole remaining subsection after it deals only with human experience. Kant explains that the categories are possible because of the relation between appearances and the original apperception, so that in experience there can be nothing that would not stand under the conditions of the synthesis in accordance with concepts. His example is the concept of a cause, which is nothing but a synthesis in accordance with concepts, without which a thoroughgoing and universal, and hence necessary, unity of consciousness in the manifold of perceptions would be impossible. In such a case, we would not have experience, and our perceptions would be less than a dream (for even a dream has a unity).³⁷¹

Kant explains this further by contrasting his Deduction to attempts to derive the basic concepts of the understanding from experience. He notes that the necessity found in the concept of a cause, for instance, cannot be learned from experience. The point is that unless our experience is first made possible by the unity

³⁷¹ A 111–112.

expressed in this concept, we could never be conscious of that necessity. Kant clarifies this with the following discussion:

But that empirical rule of *association*, which one must assume throughout if one says that everything in the series of occurrences stand under rules according to which nothing happens that is not preceded by something upon which it always follows – on what, I ask, does this, as a law of nature, rest, and how is this association even possible? The ground of the possibility of the association of the manifold, insofar as it lies in the object, is called the *affinity* of the manifold. I ask, therefore, how do you make the thoroughgoing affinity of the appearances (by means of which they stand under constant laws and *must* belong under them) comprehensible to yourselves?³⁷²

Kant's answer is that the thoroughgoing affinity of the appearances is possible on his principles. This is a very interesting conclusion but it can be easily misunderstood, because it may be difficult to understand what Kant means by the rule of association and the affinity of appearances, so let us take a look at what they mean.

Kant calls the ground of the possibility of the association of the manifold “insofar as it lies in the object”, the affinity of the manifold. By association he does not therefore refer to mere empirical reproduction of appearances but to the association that is *thought* in appearances, for the ground of the empirical reproduction of appearances does not lie in the object but in the subject. Kant then asks us: how do we make the thoroughgoing affinity of appearances comprehensible to ourselves? His purpose is to draw attention to the fact that if we ask whether the appearances really are subject to, e.g., the laws of causality, we are no longer dealing with mere appearances and empirical reproduction, but have applied our understanding to the appearances. And since this is pos-

³⁷² A 112–113.

sible only through the application of the concept of causality, the appearances stand under the laws of causality.

Interestingly, this is just the position Tetens had already taken. As I mentioned before, he thought that the necessity we think in the appearances cannot be a mere subjective necessity. It lies in the appearances themselves. In fact, the Subjective Deduction does not contain any elements that Tetens did not have in his hands. Had he accepted Merian's conception of original apperception, which he discusses in his *Versuche*, he could have incorporated his own conception of inner sense with Kant's view on sensibility expressed in the *Dissertation* and reached the Subjective Deduction for the conclusion he already endorsed. This is of course mere speculation but it illustrates that Kant's originality lies not so much in making new discoveries but in what he does with those discoveries. His originality lies above all in his transcendental method.

However, there is one important discovery Kant did make concerning our cognitive faculties. Whereas Tetens thought that the productive faculty, the faculty of feigning, is an independent faculty, Kant sided with Wolff and thought that it is derivable from the faculty of imagination. However, he had a completely new idea of *how* it is derivable from the faculty of imagination. In the Subjective Deduction Kant has already explained what his invention is, but it will be used first in the Objective Deduction to which we now turn our attention.

6. THE OBJECTIVE DEDUCTION IN THE A EDITION

6.1. *Introduction*

I claimed above that a mere analysis of the faculty of thought cannot refute the possibility that there might be something in our animal-like awareness that we cannot think. Since Kant wants to prove that we can think everything that can come before our senses, we should expect the Objective Deduction to contain not only an analysis of the object of thought but also an analysis of the object of sensibility, and this is indeed the case.

In the Subjective Deduction, the faculty of understanding was analysed in order to illuminate the relation of our cognition to its object from the subjective side. Now, in the Objective Deduction, Kant approaches this relation from the side of the object. His own characterisation of the difference between the two Deductions is that what has been expounded separately and individually in the Subjective Deduction will now be represented as unified and in connection, so the material for the Objective Deduction has already been presented in the Subjective Deduction. However, we should not expect to see a mere reorganisation of words, because the change in perspective will change even terminology. The purpose of the Subjective Deduction was to examine “the pure understanding itself, concerning its possibility and the powers of cognition on which it itself rests”.³⁷³ This analysis of the active capacity involved in thinking an object is now left behind, and the relation of our thought to the object will be examined by examining the object. However, because this object is nothing in itself but only a unity of empirical apperception represented in inner sense, and because we are consequently still examining something in the mind, the difference between these two Deductions

³⁷³ A XVI.

may not be sufficiently clear to the reader. We should thus try to clarify this difference before turning our attention to the argument.

When we analyse the relation of our thought to its object from the side of the object, we must analyse something in our empirical apperception. This means that although our capacity to be acquainted with appearances does not in itself presuppose apperception, this does not concern us here, as it is not the action of our capacities that is being analysed but the object of thought. Nevertheless, by analysing the three syntheses Kant has provided the reader with an understanding of what cognition presupposes, and he can now assume that the reader understands what he has said of the cognitive capacities. At the beginning of the Objective Deduction, Kant first reiterates that the possibility of experience in general and cognition of its objects rest on three subjective sources of cognition, namely sense, imagination and apperception. He then states that each of these capacities can be considered as empirical (in application to given appearances) but that they are also “elements or foundations *a priori* that make this empirical use itself possible.”³⁷⁴ The relation between the empirical use and the *a priori* foundations Kant expounds in the following:

Sense represents the appearances empirically in *perception*, the *imagination* in association (and reproduction), and *apperception* in the *empirical consciousness* of the identity of these reproductive representations with the appearances through which they were given, hence in *recognition*.

But pure intuition (with regard to it as representation, time, the form of inner intuition) grounds the totality of perception *a priori*; the pure synthesis of the imagination grounds association *a priori*; and pure apperception, i.e., the thoroughgoing identity of oneself in all possible representations, grounds empirical consciousness *a priori*.³⁷⁵

³⁷⁴ A 115.

³⁷⁵ A 115–116.

Kant has explained in the Transcendental Aesthetic and in the Subjective Deduction how these pure elements ground the empirical use of these capacities. He has shown that neither the empirical use of sense nor empirical apperception is grounded solely on the pure use of sense and apperception, respectively, but that a pure synthesis is required for both representing appearances and for thinking those appearances.

What Kant now sets out to do is to follow the inner ground of representations to the point “in which they must all come together in order first to obtain unity of cognition for a possible experience”.³⁷⁶ This “inner ground” needs explaining: although Kant refers to the subjective sources of cognition, his intention is not to refer to the action through the faculties but to the results of that action. While the reader is expected to have a deeper understanding of what lies behind the representations, it is now the representations themselves that are being examined, not the action that produces those representations. The difference between the Subjective and the Objective Deduction is difficult to express precisely, however, because in the Objective Deduction we are still examining something in the mind. The object of thought is, of course, represented as outside me, but nevertheless it is a modification of the mind and belong to my inner sense, so an analysis of the possibility of the object is an analysis of my ability to represent it. In the Objective Deduction, we therefore need to examine the faculties – we need to examine how it is possible that they can represent an object of thought. The crucial difference between these two Deductions is that in the Subjective Deduction we were concerned with how the faculty of thinking is possible. Here we are concerned with how the *object* of thought is possible.

Both of these Deductions are extremely difficult to understand, and before we start examining the Objective Deduction, I

³⁷⁶ A 116.

want to pose a question: Why are they so difficult? In the Introduction, I explained that my hypothesis is that Kant adopted Tetens' account of inner sense. According to this account, our cognitive action is represented to us through our inner sense. I explained that Tetens' method is empirical (although it is not limited to what is empirical in our cognition but is also concerned with what is *a priori*). Kant's method, on the other hand, is transcendental and it is concerned with the possibility of our *a priori* cognition. If my hypothesis is correct, then the object of Kant's inquiry – the transcendental element of our cognition – is something behind our inner sense, and it is impossible for us to observe it, because inner sense gives us only the effect of that element. This is why the Deductions are so difficult to understand. They examine our own consciousness and at the same time transcend that very consciousness so that the analysis cannot dismantle it into cognizable elements. The mental action required for consciousness lies behind the curtain of inner sense. As we cannot be conscious of the action itself of the transcendental use of our faculties, the only way to examine this use is to see what our *a priori* cognition presupposes.

The Objective Deduction consists of two easily distinguishable parts: one proceeding from the top (pure apperception) and one proceeding from beneath (from what is empirical in our cognition) towards the point where pure thought and the empirical element of cognition meet each other. This two-fold structure is present in both editions, although with a slightly different perspective, and my purpose is to show that the Objective Deduction is compatible with the B Deduction. The section that comprises the top-down part in the A Deduction can be easily shown to be present in the B Deduction as well, although the argument structure is somewhat different in the B edition. In the top-down part of the A Deduction Kant proceeds from empirical apperception to the original faculties of apperception and imagination, and the analysis starts from the effect of apperception in cognizing an

object. In § 16 of the B Deduction Kant discusses the same effect but without discussing the role of imagination. Kant's view on the role of imagination has not changed in the B Deduction but we will see that the argument is different regarding that role, so I will present here what is common to both Deductions by going through the text as it is presented in the A edition while simultaneously commenting the § 16 of the B edition. § 16 expresses the same thought slightly differently, and perhaps better, so I think we can gain from comparing these different versions and considering them as having the same objective.

However, I must first say something about the preceding § 15 of the B edition. The motivation for rewriting the Deduction was to express the argument so that it does not rely on an analysis of the faculties at all. This was not because Kant thought that he had made an error in the A edition. I think that the reason for rewriting the Deduction was that he saw that the aim of convincing the reader was more likely to be achieved the less the Deduction contained talk of the faculties. This is why he omitted the distinction between the transcendental and empirical use of our original faculties (presented in A 94). Because of this new approach, § 15 is based on the crude distinction between sensibility and understanding. The B Deduction does not presuppose the analysis of the understanding as a faculty, which the A Deduction presupposed, and it seeks to avoid such an analysis altogether – not indeed because Kant had changed his mind but because in this way the argument should be less likely to be rejected by the (Wolffian) reader.

So let us look at what Kant says in § 15. Regarding sensibility, the B Deduction presupposes nothing but the Transcendental Aesthetic:

The manifold of representations can be given in an intuition that is merely sensible, i.e., nothing but receptivity, and the form of this intuition can lie *a priori* in our faculty of repre-

sentation without being anything other than the way in which the subject is affected.³⁷⁷

In the Deduction we are concerned with cognition proper, and Kant's focus is on the fact that besides intuition, cognition necessarily contains a combination which cannot come to us through the senses:

Yet the *combination (conjunctio)* of a manifold in general can never come to us through the senses, and therefore cannot already be contained in the pure form of sensible intuition; for it is an act of the spontaneity of the power of representation, and, since one must call the latter understanding, in distinction from sensibility, all combination, whether we are conscious of it or not, whether it is a combination of the manifold of intuition or of several concepts, and in the first case either of the sensible or non-sensible intuition, is an act of the understanding, which we would designate with the general title *synthesis* in order at the same time to draw attention to the fact that we can represent nothing as combined in the object without having previously combined it ourselves, and that among all representations *combination* is the only one that is not given through objects but can be executed only by the subject itself, since it is an act of its self-activity.³⁷⁸

Notice Kant's manner of expression: he does not say what the understanding is; he only says that *in distinction from sensibility*, we must call spontaneity understanding. Thus, he continues, *we would* designate the act of the understanding with the general title *synthesis in order to* draw attention to the fact that we ourselves must have combined everything that we can represent as combined in the object (of thought). The purpose of this introduction is to point out that we cannot receive the representa-

³⁷⁷ B 129.

³⁷⁸ B 129–130.

tion of combination (which is always cognition in the proper sense) through sensibility. There is no need (in the B Deduction) to analyse the understanding in order to see that it is not an original faculty, because Kant has found a new way of presenting the Deduction. This new approach will change the bottom-up-part of the Deduction, and concerning that part I will go through the two versions separately. It does not, however, change the beginning of the top-down-part, because that part concerns apperception only. To that part we shall now turn our attention.

6.2. Starting from the Top

We must begin the Deduction, Kant says, with pure apperception.

All intuitions are nothing for us and do not in the least concern us if they cannot be taken up into consciousness, whether they influence it directly or indirectly, and through this alone is cognition possible.³⁷⁹

Recall my example of the squirrel as a creature that can represent appearances without being able to think them. The appearances it represents and reproduces are nothing for it, because it cannot take them up into consciousness and recognize them, and it has no cognition in the proper meaning of the word. Of course, the cognition we have has its ground in the kind of cognition the squirrel has in its intuitions, but cognition proper requires that we are capable of taking those intuitions up into consciousness.

³⁷⁹ A 116.

This empirical apperception, which results from the use of the understanding on appearances, is dependent on a pure apperception, and this is Kant's starting-point:

We are conscious *a priori* of the thoroughgoing identity of ourselves with regard to all representations that can ever belong to our cognition, as a necessary condition of the possibility of all representations (since the latter represent something in me only insofar as they belong with all the others to one consciousness, hence they must at least be capable of being connected in it). This principle holds *a priori*, and can be called *the transcendental principle of the unity* of all the manifold of our representations (thus also in intuition). Now the unity of the manifold in a subject is synthetic; pure apperception therefore yields a principle of the synthetic unity of the manifold in all possible intuition.³⁸⁰

To the last sentence Kant adds a note where he explains that all representations have a necessary relation to a possible empirical consciousness and that all empirical consciousness, in turn, has a necessary relation to a transcendental consciousness. In the note Kant then concludes that the absolutely first and synthetic principle of our thinking in general is the proposition that all varying empirical consciousness must be combined in a single self-consciousness. Further, he notes that the mere representation *I* in relation to all others is the transcendental consciousness, and concludes that "the possibility of the logical form of all cognition necessarily rests on the relationship to this apperception *as a faculty*."³⁸¹

Here we must remember that in transcendental logic we are interested in the origin and content of our representations. We should also remember that the Analytic of Concepts is an analysis of the faculty of understanding. In the Metaphysical Deduction

³⁸⁰ A 116–117.

³⁸¹ A 117n.

Kant began the analysis by stating that the understanding is a faculty for judging. Judgements, however, are functions of unity among representations and they depend on subordination of representations. Kant then found out that also concepts depend on subordination and that the same function that gives unity to different representations in a judgement also gives unity to the mere synthesis of different representations in an intuition. Expressed generally, Kant concluded, this function is a pure concept of the understanding, and the categories therefore give pure synthesis the unity necessary for subsuming intuitions under concepts.

However, this did not prove that the categories have objective reality and validity. It only showed that in thinking, the same function operates at different levels from the subsumption of intuitions all the way up to the inferences of reason. The analysis of the understanding must thus be carried further in order to prove the objective validity of the categories. Now, in § 10 of the *Leitfaden*, Kant showed that one of the requirements of cognition of all objects is the unity in the synthesis of a pure manifold. Because concepts, judgements and inferences all involve a synthesis of a pure manifold, Kant was able to conclude that the same function of unity grounds all of them. In order to arrive at that conclusion, he did not have to inspect how the understanding provides us with this unity, but now we see that the ground of this unity is the faculty of original apperception. Kant's reasoning is familiar to us from the Subjective Deduction. If the world is nothing but my experience of appearances, then these appearances in the world have a necessary relation to my possible consciousness of them. Otherwise they would not belong to the world. Now, there can be only one I representing the appearances in different locations and at different times, and I am conscious of this identity of me *a priori*. All empirical consciousness thus presupposes transcendental apperception. This was explained in the subsection on the synthesis of recognition, but whereas in the Subjective Deduc-

tion the focus was on the unity of synthesis that the transcendental apperception effects, it is now on the faculty itself.

The logical form of cognition thus depends on the transcendental apperception. In other words, we could not perform the act required for concepts, judgements and inferences without the pure apperception, which grounds our recognition of appearances.

This same point Kant makes also in the B deduction. In § 16 Kant begins with empirical apperception, i.e. the recognition of appearances (the same applies to pure sensible intuitions, concepts and judgements), by stating that the *I think* must be able to accompany all my representations. The *I think* is the pure apperception, an act of spontaneity, and its unity is the transcendental unity of self-consciousness. The crucial point is that this *identity* of the apperception of a manifold given in intuition presupposes a synthetic *unity* of consciousness. Kant expresses this in the following passage from the B Deduction:

Therefore it is only because I can combine a manifold of given representations *in one consciousness* that it is possible for me to represent the *identity of the consciousness in these representations* itself, i.e., the *analytical* unity of apperception is only possible under the presupposition of some *synthetic* one.³⁸²

Kant explains this further in a note where he says that the analytical unity of concepts – of the concept of red, for example – presupposes an antecedently conceived possible synthetic unity. Kant explains this in the note:

A representation that is to be thought of as common to *several* must be regarded as belonging to those that in addition to it also have something *different* in themselves; consequently

³⁸² B 133.

they must antecedently be conceived in synthetic unity with other (even if only possible representations) before I can think of the analytical unity of consciousness in it that makes it into a *conceptus communis*.³⁸³

If we step down one grade in cognition from cognizing something to the mere acquaintance with it, i.e. to the grade Kant says animals are capable of,³⁸⁴ we see that Kant's point here is similar to the point Tetens made concerning our acquaintance with appearances. Acquaintance, Kant says according to the *Jäsche Logic*, is the kind of cognition where the subject can represent something in comparison with other things, both as to sameness and to difference, but not with consciousness. This is the level of mere empirical reproduction. Empirical reproduction presupposes reproducibility, which is not possible without representing something in comparison with other things as to sameness and to difference. What Tetens pointed out was that representing sameness (without consciousness) presupposes that the representation represented as being the same has been previously represented in combination with something different. Reproducibility thus presupposes synthesis. Here Kant makes the same remark concerning representations *with* consciousness: representing something as common to several presupposes that the representation has been conceived in synthetic unity with other representations. Stepping up from mere acquaintance to cognition thus involves a new kind of act and the result differs in kind from mere acquaintance, just as the latter differs in kind from representations produced by mere affection. Both acquaintance and cognition depend on the ability to represent a synthetic unity, but the ground of the unity in cognition is of a new kind in cognition proper: it is the transcendental unity of apperception.

³⁸³ B 133–134n.

³⁸⁴ Cf. Ak. 9:65.

The analysis of the faculty of understanding has thus revealed that all our cognition has its origin in the faculty of pure apperception. However, it cannot be the sole origin of *cognition* because apperception is mere thinking and cognition involves more than what the faculty of thinking can provide. In cognition, our understanding must be capable of thinking something in our sensible intuition and thus be connected to sensibility, and here the two Deductions take different paths. Although Kant's view on the relation between sensibility and understanding has not changed in the B edition, he has found a new way of proving, on the basis of this relation, that everything that can come before our senses stands under the categories. In both of the Deductions Kant has begun by an analysis showing what the *faculty* of thinking ultimately is, so even in the B Deduction we cannot do without a discussion on the original cognitive faculties. In neither the A nor the B Deduction will Kant analyse the action behind those faculties but in the A Deduction his argument rests on *what* those faculties are, whereas in the B Deduction the focus will be on what they effect. In the Subjective Deduction Kant's argument rests on how the faculties work; in the Objective Deduction his focus is on the faculties themselves, and in the B Deduction he considers what the faculties produce.

So far, we have found out that pure apperception yields a principle of the synthetic unity of the manifold in all possible intuition, and now, in the A Deduction, we will have to investigate the pure synthesis to which pure apperception gives unity:

The synthetic unity, however, presupposes a synthesis, or includes it, and if the former is to be necessary *a priori* then the latter must also be a synthesis *a priori*. Thus the transcendental unity of apperception is related to the pure synthesis of the imagination, as an *a priori* condition of the possibility of all composition of the manifold in a cognition.³⁸⁵

³⁸⁵ A 118.

As Kant said already in § 10 of the *Leitfaden* and explained in the second section of the Deduction chapter, synthesis is an effect of the imagination. Now we have learned that the necessary unity grounding all cognition is the transcendental unity of apperception, so the transcendental unity of apperception must be related to the pure synthesis of imagination, if it is to ground cognition. Now we must find out what effects this *a priori* synthesis:

But only the *productive synthesis of imagination* can take place *a priori*; for the *reproductive synthesis* rests on conditions of experience. The principle of the necessary unity of the pure (productive) synthesis of the imagination prior to apperception is thus the ground of the possibility of all cognition, especially that of experience.³⁸⁶

The introduction of a productive synthesis of imagination may cause confusion. Only the productive synthesis, Kant says, can be *a priori*, and the reproductive synthesis rests on conditions of experience. This may seem confusing because in the Subjective Deduction he argued that there is a reproduction of imagination that does not rest on conditions of experience. But we are now approaching our subject from the side of the object, and by reproductive synthesis Kant means the empirical use of imagination. Based on what we have learned in the Subjective Deduction, the productive imagination presupposes a reproduction that is not empirical, because in the end, all productive use of imagination comes down to the pure *a priori* use of imagination, which is possible only through a reproduction of the *a priori* manifold. Empirical reproduction (and association) thus presupposes a production of that which is to be empirically reproduced. Moreover, this productive use of imagination is grounded on an *a priori* use

³⁸⁶ A 118.

and, ultimately, on a transcendental use.³⁸⁷ However, we are currently not interested in the action of the imagination behind the *a priori* use. What concerns us here is that reproducibility requires a productive synthesis of imagination, and that only it can take place *a priori*.

The conclusion then is that pure apperception and the relation of the *I* to all other representations, i.e. transcendental apperception, does not provide the sole *a priori* ground of conceptual cognition: the *a priori* ground of pure synthesis of imagination is the second element needed for empirical apperception and experience.

Kant continues the A Deduction by shifting attention from the faculty of productive imagination to the synthesis it effects:

Now we call the synthesis of the manifold in imagination transcendental if, without distinction of the intuitions, it concerns nothing but the combination of the manifold *a priori*, and the unity of this synthesis is called transcendental if it is represented as necessary *a priori* in relation to the original unity of apperception. Now since this latter is the ground of the possibility of all cognitions, the transcendental unity of the synthesis of the imagination is the pure form of all possible cognition, through which, therefore, all objects of possible experience must be represented *a priori*.³⁸⁸

In this quote, Kant explains what the transcendental unity of synthesis is. It is the unity required for pure apperception, which we know must accompany all experience. As Kant explains in § 16 of the B edition, the manifold that any cognition

³⁸⁷ In the loose sheet B 12, p. 18 (Ak. 23:18–20) Kant explains that the empirical use of the productive imagination presupposes a pure but sensible use, which, in turn, presupposes a transcendental use of the same faculty.

³⁸⁸ A 118, translation modified.

must necessarily contain “can only be given in the intuition, which is distinct from the I, and thought through *combination* in a consciousness.”³⁸⁹ The transcendental unity of synthesis is thus the form of all possible cognition,³⁹⁰ and as Kant next states, the unity of apperception in relation to the transcendental synthesis of imagination, is the pure understanding.³⁹¹

Kant has thus explained what the faculty of understanding is. As he puts it in the B Deduction, the understanding is “nothing further than the faculty of combining *a priori* and bringing the manifold of given representations under unity of apperception”.³⁹² The given may be intuitions, concepts or judgements: the function is the same in all cases. Similarly, in the A Deduction (in the note on page A 117) Kant concluded that the synthetic unity of apperception is the faculty of understanding. However, in this explanation of the understanding Kant abstracted from the faculty that effects synthesis, and in the top-down part of the A Deduction Kant has now analysed the understanding further:

The unity of apperception in relation to the synthesis of imagination is the understanding, and this very same unity, in relation to the transcendental synthesis of the imagination, is the pure understanding.³⁹³

As synthesis is an effect of the imagination, the understanding depends on the original capacities of apperception and imagination. The A Deduction is founded on this discovery.

³⁸⁹ B 135.

³⁹⁰ As we shall see, in this remark the term “cognition” could be taken in the broad sense, since it does not say whether the ground of the unity is provided by the transcendental apperception. It is doubtful, however, whether Kant intended it here to be so taken, since the focus here is on the conceptual cognition.

³⁹¹ A 119.

³⁹² B 135.

³⁹³ A 119.

In the understanding there are therefore pure *a priori* cognitions that contain the necessary unity of the pure synthesis of the imagination in regard to all possible appearances. These, however, are the *categories*, i.e., pure concepts of the understanding; consequently the empirical power of cognition of human beings necessarily contains an understanding, which is related to all objects of the senses, though only by means of imagination, under which, therefore, all appearances as data for a possible experience stand.³⁹⁴

The pure understanding thus contains, through the categories, “the necessary unity of the pure synthesis of the imagination in regard to all possible appearances.”³⁹⁵ Now, as we have been analysing human cognition, i.e. not mere acquaintance but cognition in which objects in intuition are cognized, it can be concluded that this cognition is possible only through the pure synthesis of imagination and that all cognized appearances have a necessary relation to the understanding. In other words, it can be concluded that

the pure understanding, by means of the categories, is a formal and synthetic principle of all experiences, and that appearances have a *necessary relation to the understanding*.³⁹⁶

This conclusion by itself would not be very useful. It merely proves that all those appearances that we *consciously* perceive are necessarily in accord with the categories, but it leaves open the possibility that these appearances might be mere figments of my imagination. To prove that they are not, we need to approach the necessary connection of the pure understanding with the appearances from what is empirical.

³⁹⁴ A 119.

³⁹⁵ A 119.

³⁹⁶ A 119.

6.3. Starting from Beneath

At the beginning of the Objective Deduction Kant reminded us that sense represents the appearances empirically in perception, imagination in reproduction, and apperception in recognition. In the top-down part, Kant analysed what pure understanding is. He began the analysis with pure apperception and concluded that the pure understanding is the unity of apperception in relation to the transcendental synthesis of imagination. In that analysis, he abstracted from what is given to us through sense. In the bottom-up part, the analysis begins with that empirical part of our cognition. In other words, the object of Kant's analysis in both parts is empirical apperception:

The first thing that is given to us is appearance, which, if it is combined with consciousness, is called perception (without the relation to at least possible consciousness appearance could never become an object of cognition for us, and would therefore be nothing for us, and since it has no objective reality in itself and exists only in cognition it would be nothing at all).³⁹⁷

The appearance is the first thing that is given to us, because as such, the impressions of the senses cannot be objects of our representations. This is, as we saw already in the Transcendental Aesthetic, because we can be conscious of the impressions only through sensations, which are subjective representations, hence not objects. When we first represent an object, we represent an appearance containing a manifold in intuition. In the Subjective Deduction Kant explained how this representation involves cognitive action. Here the act of apprehension is not being examined but the product of the act, which is called perception if the appearance is combined with consciousness. In other words,

³⁹⁷ A 119–120.

“perception” means cognition of an object in the proper sense. Kant thus uses this word in the way Tetens and Reid used it, and by “perception” he means human cognition which does not involve mere images of objects. This is why I have been cautious in using this word and instead made use of expressions such as “apprehension” and “representing appearances” when it has been my intention to refer to mere perception that does not involve functions of the understanding. For Kant “perception” refers to empirical consciousness of appearances, not to mere representing of them, and this is what he begins with in the bottom-up part.

Kant’s aim is to analyse the object of perception:

But since every appearance contains a manifold, thus different perceptions by themselves are encountered dispersed and separate in the mind, a combination of them, which they cannot have in sense itself, is therefore necessary.³⁹⁸

Earlier, in analysing judgements, we saw that all acts of the understanding can be reduced to judging and that concepts are predicates of possible judgements. Here we face a similar situation. An appearance necessarily contains a manifold and its parts can therefore, at least in principle, be perceived. On the other hand, appearances can be used as partial perceptions of other appearances. It is evident that for cognition a combination of perceptions is necessary because cognition always contains a unity of a manifold, and based on the results of the Transcendental Aesthetic, senses cannot provide the appearance with this combination. “There is thus”, Kant says,

³⁹⁸ A 120.

an active faculty of the synthesis of this manifold in us, which we call imagination, and whose action exercised immediately upon perceptions I call apprehension.³⁹⁹

To this Kant adds a note where he states that no psychologist has yet thought that the imagination is a necessary ingredient of perception itself. He reports two reasons for this. The first is that this faculty has been limited to reproduction, and the second is that it has been thought that senses are capable of putting the impressions together and producing images of objects. Now, Tetens did not fall to the latter delusion but he did think of imagination merely in terms of reproduction. However, considering that also Tetens thought that we need a productive faculty in order to form images from mental impressions, the difference between Kant and Tetens is marginal. The difference lies merely in the fact that for Kant the productive faculty is the faculty of *imagination*. Elsewhere, e.g. in *Anthropology from a pragmatic point of view*, Kant uses the German word “*dichtend*” as a synonym for “productive”, and he even calls the productive imagination by the name of *facultas fingendi*, i.e. the faculty of feigning (*Dichtkraft* in Tetens).⁴⁰⁰ One could say that in Kant’s theory, the action of the faculty of feigning is merely incorporated into imagination and labelled productive imagination, but this would be missing his point. When we remember that the productive imagination is possible only through a transcendental reproduction, Kant’s insistence that the faculty of feigning is to be included in imagination becomes understandable. This is indeed, as Kant says, something no one had thought before, and for Kant’s purposes it is essential that the productive faculty is to be counted as belonging to the faculty of imagination, because the transcendental deduction depends on this discovery.

Kant clarifies this point further:

³⁹⁹ A 120.

⁴⁰⁰ Ak. 7:167; Reflection 228, Ak. 15:87.

For the imagination is to bring the manifold of intuition into an *image*; it must therefore antecedently take up the impressions into its activity, i.e., apprehend them.⁴⁰¹

Note that Kant refers here to the apprehension of impressions instead of perceptions. We may again use the analogy between judging and perceiving: in the analysis of judging we must ultimately face the subsumption of not concepts but intuitions, and likewise we must in the analysis of perception ultimately face the apprehension of not perceptions but impressions. In both cases, a new kind of representation emerges from the act of cognition. In the Subjective Deduction where Kant analysed synthesis, he was able to explain the requirements of apprehension in greater detail, but here he feels no need to go into that. He does not even mention the transcendental use of imagination, but on the basis of what was said in the second section of the Deduction chapter, we know that the empirical faculty of productive imagination is grounded on it.

Although apprehension of impressions is mentioned here almost in passing, I see it as a crucial step in the argument. Because Kant has showed that the synthesis of apprehension is not limited to the synthesis of perceptions but also to impressions, he will be able to prove that an image not capable of being apperceived is not possible. Our animal-like apprehension is thus necessarily capable of becoming human perception and thus capable of being thought. Had Kant left the impressions out of the consideration, he would at best have been able to prove that there are perceptions to which the categories apply but not that the categories are valid for everything that can come before our senses. It would, however, be absurd to maintain that apperception is involved in the apprehension of impressions: the appearances, as undetermined objects, must already be available for apperception,

⁴⁰¹ A 120.

because impressions are not intuitions, and the first application of apperception is to bring unity to the synthesis of intuitions. This is also exactly how Tetens thought: the mind must first take the impressions into its activity and form images before it can apperceive the images and have perception.

Now, although Kant is here not discussing cognitive development but analysing the object of cognition, and although apperception is incapable of reaching the impressions, it is important to understand that since even human perception is always occasioned by impressions, they do pertain to the analysis. We will have to keep this in mind when Kant moves from the empirical faculty of productive imagination to the empirical faculty of reproductive imagination:

It is, however, clear that even this apprehension of the manifold alone would bring forth no image and no connection of the impressions were there not a subjective ground for calling back a perception, from which the mind has passed on to another, to the succeeding ones, and thus for exhibiting entire series of perceptions, i.e., a reproductive faculty of imagination, which is then also merely empirical.⁴⁰²

What Kant says here may seem to contradict my explanation of the role of impressions, because he seems to be saying that the ability to call back a *perception* is a requirement of the connection of impressions, and I just explained that impressions are something more fundamental than perceptions. We must understand, however, that Kant is here examining the possibility of cognizing an object, not considering what comes first and what comes later. When we cognize an object, we have a perception, and Kant's view is that perception presupposes an image. Just like Tetens, Kant thought that what distinguishes perception from an image is consciousness, and here he argues that the mere image

⁴⁰² A 121.

presupposes that the imagination takes up the empirical matter of intuition and puts that matter together. This goes back all the way to the impressions, which lie behind all empirical cognition. What this means is that our imagination must produce an image out of empirical matter and that unlike an appearance, the image *does contain* this empirical matter. But although we are now considering what is empirical and setting aside pure apperception, we are still examining human perception, in which consciousness is added to images and to impressions, and the point is that the mere productive imagination is not enough to explain human perception.

In the Subjective Deduction Kant analysed the syntheses of apprehension and reproduction and argued that there must be an *a priori* use of the synthesis of apprehension (and that this empirical use presupposes transcendental reproduction). Here the approach is different as we are now considering representations and their objects rather than the action of our cognitive faculties. Nevertheless, also here Kant's aim is to show that there is an *a priori* use of imagination, and here he begins the argument from the fact that an appearance necessarily contains a manifold. In the Subjective Deduction we learned that apprehension involved empirical reproduction, and now Kant argues that empirical apprehension could not produce an image without empirical reproduction. In order to be able to represent a heavy cinnabar or the melting of an ice cube in a glass of soda, we need empirical reproduction. Since perception necessarily contains a combination, we can conclude that the productive use of imagination by itself could not produce perception and that perception must involve the use of the reproductive faculty of imagination.

Now, when we consider this reproduction, we see that it must be rule-governed:

Since, however, if representations reproduced one another without distinction, just as they fell together, there would in

turn be no determinate connection but merely unruly heaps of them, and no cognition at all would arise, their reproduction must thus have a rule in accordance with which a representation enters into combination in the imagination with one representation rather than with any others. This subjective and *empirical* ground of reproduction in accordance with rules is called the *association* of representations.⁴⁰³

We clearly do have subjective rules for reproducing representations. By itself, this is not a very useful conclusion but consider the fact that, unlike animals, we are conscious of this rule. This consciousness of the rule, the association of appearances, implies a unity of the rule, the conditions of which we can investigate:

But now if this unity of association did not also have an objective ground, so that it would be impossible for appearances to be apprehended by the imagination otherwise than under the condition of a possible synthetic unity of this apprehension, then it would also be entirely contingent whether appearances fit into a connection of human cognitions. For even though we had the faculty for associating perceptions, it would still remain in itself entirely undetermined and contingent whether they were also associable; and in case they were not, a multitude of perceptions and even an entire sensibility would be possible in which much empirical consciousness would be encountered in my mind, but separated, and without belonging to *one* consciousness of myself, which, however, is impossible. For only because I ascribe all perceptions to one consciousness (of original apperception) can I say of all perceptions that I am conscious of them.⁴⁰⁴

Since in empirical consciousness we are conscious of the rule of reproduction of perceptions and since appearances are

⁴⁰³ A 121.

⁴⁰⁴ A 121f.

nothing but determinations of the inner sense, the synthesis that produces the images, which ground those perceptions, must have a ground in the appearances. Imagination must, therefore, produce the appearances in such a way that we can think them. The synthetic unity of this apprehension is provided by a category, which consists in the representation of the necessary synthetic unity of the pure manifold of intuition.⁴⁰⁵ Hence, the apprehended appearances must contain the pure synthesis of imagination, which is represented in the category, because otherwise it would be impossible to be conscious of their association. The point here is not that my subjective capacity of associating appearances depends on apperception but that it would be impossible for me to become conscious of the association between my perceptions without their belonging to one consciousness. Further, because it has been shown that an appearance must necessarily contain that which enables it to be thought, not only these perceptions but the entire sensibility with its appearances is apprehended under the condition of a possible synthetic unity of their apprehension, i.e. that they are capable of being thought. In other words, it would be impossible to subsume empirical intuitions under empirical concepts if the appearances were not apprehended under the condition represented in the categories.

Thus, what Kant means by association is our consciousness of the connection between appearances, and this already involves the use of apperception, because in mere intuition, as we have observed, such a connection could not be represented. Only the subjective connection, which does not pertain to the appearances themselves, can be possible without apperception. Kant elaborates on this by considering the possibility that we did have the faculty of associating perceptions without their belonging to one consciousness. Were we not human this would be the case,

⁴⁰⁵ A 79 / B 104

but then this ability would be reduced to mere reproduction and the associability of appearances would be lost.

Therefore, there must be not only a subjective but also an objective ground of empirical reproduction: a ground that can be understood *a priori* and that is prior to all empirical laws of imagination. On the basis of this ground, all appearances can and must be regarded as “data of sense that are associable in themselves and subject to universal laws of a thoroughgoing connection in reproduction.”⁴⁰⁶ This ground is the affinity of appearances that was already introduced in the Subjective Deduction. There this affinity was approached from the subjective side of the act of synthesis and it was argued that the act presupposes a unity of rule which is possible only through original apperception. Here the requirement of a unity of rule has been shown by approaching the affinity from the side of the object, from the (conscious) perception of appearances. And again, it must be concluded that the affinity of appearances presupposes apperception:

But we can never encounter this anywhere except in the principle of the unity of apperception with regard to all cognitions that are to belong to me. In accordance with this principle all appearances whatever must come into the mind or be apprehended in such a way that they are in agreement with the unity of apperception, which would be impossible without synthetic unity in their connection, which is thus also objectively necessary.⁴⁰⁷

This principle of the unity of apperception was expounded in the top-down part, so we are beginning to see how the two parts of the Objective Deduction approach the same point, namely the co-operation of apperception and imagination. The affinity of

⁴⁰⁶ A 122.

⁴⁰⁷ A 122.

appearances depends on original apperception as well as on an *a priori* synthesis of imagination:

The objective unity of all (empirical) consciousness in one consciousness (of original apperception) is thus the necessary condition even of all possible perception, and the affinity of all appearances (near or remote) is a necessary consequence of a synthesis in the imagination that is grounded *a priori* on rules.⁴⁰⁸

Kant's statement that all possible perception has a necessary relation to the original apperception is in need of clarification. Appearances themselves, of course, in no way depend on apperception (if they did, we would apperceive our impressions and not intuitions, which, along with space and time, would become redundant), but all empirical unity of consciousness of our perceptions presupposes one original consciousness, and the affinity of appearances therefore is a necessary consequence of a synthesis that involves apperception.⁴⁰⁹

In this way, the analysis of perception has brought us to the productive synthesis that was introduced in the top-down part of the Deduction:

The imagination is therefore also a faculty of a synthesis *a priori*, on account of which we give it the name of productive imagination, and, insofar as its aim in regard to all the mani-

⁴⁰⁸ A 123.

⁴⁰⁹ It remains unclear whether Kant means that it is the synthesis or the imagination that is grounded on *a priori* rules. The difference is only marginal but one detail calls for attention: If Kant means synthesis, then it has to be noted that a certain kind of *a priori* synthesis is meant – an intellectual one, as we are about to see – for not every *a priori* synthesis involves apperception. If, on the other hand, Kant means imagination, then there is no need for such a qualification, because imagination is grounded on *a priori* rules both in intuiting and in thinking.

fold of appearance is nothing further than the necessary unity in their synthesis, this can be called the transcendental function of the imagination.⁴¹⁰

The transcendental function of the productive imagination is what is needed for the objective unity of all empirical consciousness that was discussed in the preceding paragraph. It can then be concluded that experience is possible only by means of this transcendental function of imagination. Kant explains that by means of this function “the affinity of appearances, and with it the association and through the latter finally reproduction in accordance with laws” become possible.⁴¹¹ One should note that the association does not here refer to the subjective ground of empirical reproduction but to association that presupposes associability and concepts. No concepts of objects at all, Kant concludes, would converge into an experience without this transcendental function of imagination.

The productive imagination has thus turned out to be a condition of experience. On the other hand, it has been shown that the original apperception likewise is a condition of experience. The link between these two must now be examined, and Kant begins by explaining the parallel between two kinds of objects:

For the standing and lasting I (of pure apperception) constitutes the correlate of all of our representations, so far as it is merely possible to become conscious of them, and all consciousness belongs to an all-embracing pure apperception just

⁴¹⁰ A 123. One should note that there is an empirical use of the productive imagination as well. Here the point is that, as Kant pointed out in the top-down part, only the productive synthesis can be *a priori*, and that the bottom-up part leads to the same synthesis to which the top-down part leads.

⁴¹¹ A 123.

as all sensible intuition as representation belongs to pure inner intuition, namely that of time.⁴¹²

First of all, we should note that pure apperception is said to be the correlate of all of *our* representations, so far as it is merely possible to become conscious of them. This is what meant by the claim that the objective unity of all empirical consciousness in one consciousness of original apperception is the necessary condition of all possible perception. The perceptions would not be *my* perceptions if I did not ascribe them to one consciousness. Although I would still represent objects in intuition, these objects would not be apperceived. All consciousness thus belongs to an all-embracing pure apperception just as all represented appearances, i.e. all sensible intuition *as representation*, belong to the pure inner intuition of time. Just as the one consciousness of the thinking I is the necessary ground of apperceived objects, the one time of the intuiting I is the necessary ground of perceived objects.⁴¹³

But apperception by itself could not produce any object (and this is why it is the correlate of all of our representations *so far as it is merely possible* to become conscious of them). Consequently, it is a necessary but not a sufficient condition of the objects of experience:

It is this apperception that must be added to the pure imagination in order to make its function intellectual. For in itself the synthesis of the imagination, although exercised *a priori*, is nevertheless always sensible, for it combines the manifold only as it *appears* in intuition, e.g., the shape of a triangle. Through the relation of the manifold to the unity of apperception, however, concepts that belong to the understanding can

⁴¹² A 123–124.

⁴¹³ Objects of both kinds are, of course, represented in inner sense.

come about, but only by means of the imagination in relation to the sensible intuition.⁴¹⁴

In terms of the distinction between coordination and subordination that I used in the discussion of the Subjective Deduction, this means that through the productive imagination alone only coordination of representations is possible, and subordination requires both pure imagination and pure apperception. The shape of a triangle can be represented through imagination alone but the representation that every triangle is a polygon requires pure apperception as well as pure imagination. Objects of experience thus depend on pure apperception and pure imagination:

We therefore have a pure imagination, as a fundamental faculty of the human soul, that grounds all cognition *a priori*. By its means we bring into combination the manifold of intuition on the one side and the condition of the necessary unity of apperception on the other. Both extremes, namely sensibility and understanding, must necessarily be connected by means of this transcendental function of the imagination, since otherwise the former would to be sure yield appearances but no objects of an empirical cognition, hence there would be no experience.⁴¹⁵

The objective validity of the categories has thus been shown through the necessary connection between sensibility and understanding. These faculties share a common original capacity, the transcendental imagination, which gives the appearances their *a priori* rules. These rules, when they are represented generally, are called the categories, and through them, our apperception gives unity to the synthesis of imagination. Experience, Kant reminds us, “consists in the apprehension, the association (the

⁴¹⁴ A 124.

⁴¹⁵ A 124.

reproduction), and finally the recognition of the appearances”⁴¹⁶. It thus consists in three different empirical syntheses of the imagination, and in the highest of these, it contains “concepts that make possible the formal unity of experience and with it all objective validity (truth) of empirical cognition.”⁴¹⁷ Experience is, therefore, dependent on the *a priori* rules of imagination. What distinguishes recognition from reproduction is that recognition requires a unity of rule, and apperception gives synthesis that unity. However, recognition also presupposes reproducibility, and reproducibility requires the same rules needed for recognition. Thus, although the categories play no role in the production of appearances, they are necessarily involved in producing perception and experience:

These grounds of the recognition of the manifold, so far as they concern *merely the form of an experience in general*, are now those *categories*. On them is grounded, therefore, all formal unity in the synthesis of the imagination, and by means of the latter also all of its empirical use (in recognition, reproduction, association, and apprehension) down to the appearances, since the latter belong to our consciousness at all and hence to ourselves only by means of these elements of cognition.⁴¹⁸

We should now consider how Kant has accomplished his goal in this Deduction. In order to do that, let us look at his closing remarks:

The pure understanding is thus in the categories the law of the synthetic unity of all appearances, and thereby first and originally makes experience possible as far as its form is concerned. But we did not have to accomplish more in the tran-

⁴¹⁶ A 124.

⁴¹⁷ A 124–5.

⁴¹⁸ A 125.

scendental deduction of the categories than to make comprehensible this relation of the understanding to sensibility and by means of the latter to all objects of experience, hence to make comprehensible the objective validity of its pure *a priori* concepts, and thereby determine their origin and truth.⁴¹⁹

The objects of experience receive their formal possibility from the original synthetic unity of apperception, which means that the categories make experience possible. However, as I noted at the end of the previous section, what Kant has to prove is that the appearances themselves stand under the categories. In other words, Kant has to prove that the appearances produced by the prior act of cognition are necessarily such that the application of the posterior act of cognition is valid for them. However, showing that the categories make the objects of experience possible does not prove the validity of the categories, because the objects of experience are products of the posterior act. There is a danger of misunderstanding what Kant means by putting emphasis on the discovery that the categories make experience possible, because it may seem that he is claiming that the categories make the appearances possible. In truth, however, he agrees with the philosophers he is writing to: the objects of the senses do not depend on the functions of the understanding. This he has expressed in clear terms. Thus, his point is not that the objects of the senses are the objects of experience, which the categories make possible, but that the categories make possible human perception of the objects of the senses. He therefore has to “make comprehensible this relation of the understanding to sensibility and by means of the latter to all objects of experience”.

In the A Deduction, Kant has examined the relation of the understanding to sensibility by analysing what cognitive capacities these two faculties presuppose. He has shown that the same faculty of imagination that makes empirical reproducibility possi-

⁴¹⁹ A 128.

ble also makes associability possible, when the imagination is combined with the faculty of apperception. Sensibility and understanding are thus necessarily connected by means of transcendental reproduction. In other words, both the prior and the posterior act of cognition involve transcendental reproduction, which makes both coordination and subordination possible.

7. THE B DEDUCTION

As I explained in section 6.1, the same argument appearing at the beginning of the top-down part of the A Deduction, is presented also in the B Deduction, and essentially in § 16. I also explained that the B Deduction includes a bottom-up part as well. However, because Kant wanted to present an argument that would not be susceptible to the criticism that the Deduction is based on an analysis of our faculties, that part differs substantially from the one presented in the A Deduction. The bottom-up part itself in the B Deduction is very short, but before we can turn our attention to it, we will have to go through the rest of the top-down part after § 16 where Kant explains those things that were discussed in the omitted part of the A edition. I will here go through the Deduction rather swiftly and consider the most important parts of it in more detail in chapter 9, after I have discussed the Schematism.

I see the B Deduction as designed to convince a Wolffian reader. It is good to remember that it presupposes the Transcendental Aesthetic where Kant's purpose was to show that the Wolffian account of sensibility was erroneous. According to the Transcendental Aesthetic, our sensibility provides us with intuitions, and space and time and all their parts are singular representations containing a manifold. In § 17, Kant begins by asserting two supreme principles of the possibility of intuition:

The supreme principle of the possibility of all intuition in relation to sensibility was, according to the Transcendental Aesthetic, that all the manifold of sensibility stand under the formal conditions of space and time. The supreme principle of all intuition in relation to the understanding is that all the manifold of intuition stand under conditions of the original synthetic unity of apperception. All the manifold representa-

tions of intuition stand under the first principle insofar as they are *given* to us, and under the second insofar as they must be capable of being *combined* in one consciousness [...]⁴²⁰

These are the principles of all our cognition, and in the bottom-up part, to which we will turn our attention in a moment, Kant will take the first mentioned principle into scrutiny. In §§ 15–16 he has shown that the possibility of thinking our intuitions depends on the original synthetic unity of apperception, and now, in § 17, Kant clarifies this further by explaining what the object of cognition is:

Understanding is, generally speaking, the faculty of *cognitions*. These consist in the determinate relation of given representations to an object. An *object*, however, is that in the concept of which the manifold of a given intuition is *united*.⁴²¹

In the A edition this was discussed in A 109–110 where Kant used the expression “transcendental object”, and there Kant explained that the relation of the manifold of intuition to an object of thought is the necessary unity of the synthesis of the manifold, and he concluded that “all appearances, insofar as objects are to be given to us through them”, i.e. appearances in experience, “must stand under conditions of the necessary unity of apperception just as in mere intuition they must stand under the formal conditions of space and time”. Cognition, Kant there said, is first made possible through these conditions.

Here Kant makes the same point but now there is no need to examine the original faculties of cognition. This makes the argument much more straightforward, and if a Wolffian reader has accepted Kant’s argument in the Transcendental Aesthetic, he

⁴²⁰ B 136–137.

⁴²¹ B 137.

should also accept the conclusion that “the unity of consciousness is that which alone constitutes the relation of representations to an object”.⁴²² In order to see why the Wolffian reader is supposed to accept this conclusion, I remind the reader of how Wolff thought about cognition.

In § 48 of *Psychologia empirica* Wolff explains that when the mind represents an object it must perform two acts: the act of perception (the prior act) that produces the representation, and the act of apperception (the posterior act) through which the mind is conscious of the representation and consequently of the thing it represents. The representation, insofar as it is taken in its relation to the object, is called an idea, which is an image of a singular thing. Now, although Kant wants to preserve the two-act model of cognition, he has argued that our sensibility is not a confused mode of representation and that in cognition, the representation to which apperception is directed is an appearance: an undetermined object of an empirical intuition. Supposing that this much is granted, we can, for the moment, set aside the condition of sensibility and examine the possibility of representing an object from the perspective of the understanding. For Wolff, this was a relatively simple matter: by apperceiving the idea we become conscious of the object it represents. However, Kant's *Transcendental Aesthetic* makes things more complicated. Although the representation produced by the prior act is an image, it can no longer be regarded as an idea. That is why Kant labels it intuition (an undetermined object represented in inner sense; a mere modification of the mind). What remains the same, however, is that also in Kant's conception of sensibility the representation is a unity containing a manifold, and from this fact and the results from § 15 and 16 we can get to the root of the action of the understanding. Cognition consists, Kant said in the above quote,

⁴²² B 137.

in the determinate relation of given representations to an object, and the object is something the understanding itself makes.

That it is the *understanding* that produces the object is a crucial point that must be understood if we want to understand the Deduction. According to Wolff, the prior cognitive act produces an idea of an object of which we can become conscious through the posterior cognitive act, while our consciousness of the object, (empirical apperception), only brings clarity to the representation. Kant, on the other hand, thought that the distinction between sensibility and understanding has nothing to do with clarity, and he thought that the object, which is produced by the prior cognitive act, is a mere modification of the mind: it does not by itself represent anything. Kant explained this in the A Deduction as follows:

All representations, as representations, have their object, and can themselves be objects of other representations in turn. Appearances are the only objects that can be given to us immediately, and that in them which is immediately related to the object is called intuition. However, these appearances are nothing in themselves, but themselves only representations, which in turn have their object, which therefore cannot further be intuited by us, and that may therefore be called the non-empirical, i.e., transcendental object = X.⁴²³

If the undetermined object of an empirical intuition is to be determined it has to be used as a representation to represent an object it does not represent independently of the posterior cognitive act. In other words, *apperception* produces the object in cognition, and prior to the act of apperception appearances do not represent anything. However, as the object is something in the concept of which the manifold of a given intuition is *united*, the empirical apperception reveals something in the nature of apperception itself:

⁴²³ A 108–109.

Now, however, all unification of representations requires unity of consciousness in the synthesis of them. Consequently the unity of consciousness is that which alone constitutes the relation of representations to an object, thus their objective validity, and consequently is that which makes them into cognitions and on which even the possibility of the understanding rests.⁴²⁴

The objective reality of empirical cognition thus rests on the original synthetic unity of apperception. Indeed, in the Subjective Deduction (A 109) Kant asserted that the objective reality of empirical cognition depends on the unity of apperception. Cognition is a determinate relation of a given representation to its object, and the unity of apperception constitutes this relation. On this unity rests the objective validity of the representation and the objective reality of the cognition. The concept of a dog, for example, is an objectively real concept only because there are objects (of thought) to which it can be applied, and these objects depend on the unity of apperception. Thus, the principle of the synthetic unity of apperception is the ground for the rest of the use of the understanding:

The first pure cognition of the understanding, therefore, on which the whole of the rest of its use is grounded, and that is at the same time also entirely independent from all conditions of sensible intuition, is the principle of the *synthetic* unity of apperception.⁴²⁵

Two things require attention in this quote: this principle is a principle of the original *synthetic* unity of apperception and it is entirely *independent* of all conditions of sensible intuition. It is independent because it considers only the relation of intuition to

⁴²⁴ B 137.

⁴²⁵ B 137.

the understanding. In § 13 Kant explained that space and time are “pure intuitions that contain *a priori* the conditions of the possibility of objects as appearances, and the synthesis in them has objective validity.”⁴²⁶ On the other hand, Kant noted that the appearances could “be so constituted that the understanding would not find them in accord with the conditions of its unity”, in which case appearances “would nonetheless offer objects to our intuition, for intuition by no means requires the functions of thinking.”⁴²⁷ When we now move on to consider the rest of the Deduction, there is a real danger of confounding the two acts required for cognition: the prior cognitive act that produces an intuition, and the posterior cognitive act that produces the object of thought. Because the unity of original apperception is a *synthetic* unity, the principle is, as Kant notes, a principle only for an understanding that merely thinks and does not intuit.⁴²⁸ For us then, representing an object of thought for an intuition requires an act that is not purely intellectual but involves a synthesis of a pure manifold of intuition. A divine understanding would produce the intuition through its intellectual act; ours must resort to sensible intuition.

Kant illustrates this weakness with the example of cognizing a determinate space:

But in order to cognize something in space, e.g., a line, I must *draw* it, and thus synthetically bring about a determinate combination of the given manifold, so that the unity of this action is at the same time the unity of consciousness (in the concept of a line), and thereby is an object (a determinate space) first cognized. The synthetic unity of consciousness is therefore an objective condition of all cognition, not merely something I myself need in order to cognize an object but rather something under which every intuition must stand *in order to become an object for me*, since in any other way, and

⁴²⁶ A 89 / B 121–122.

⁴²⁷ A 90–91 / B 123.

⁴²⁸ B 138–139.

without this synthesis, the manifold would *not* be united in one consciousness.⁴²⁹

The understanding must thus, as we will shortly see, affect our sensibility through inner sense. However, this affection has nothing to do with the affection through which the undetermined object of an empirical intuition is given to the understanding. In other words, the affection of inner sense through the act of the understanding (the posterior act) is independent of the affection of inner sense through the act of intuiting (the prior act). Kant confirms this in § 18:

The *transcendental unity* of apperception is that unity through which all of the manifold given in an intuition is united in a concept of the object. It is called *objective* on that account, and must be distinguished from the *subjective unity* of consciousness, which is a *determination of inner sense*, through which that manifold of intuition is empirically given for such a combination.⁴³⁰

The manifold of intuition is empirically given to the act of the understanding through inner sense, and it can be given only through the prior cognitive act, the act of intuiting. It is important to keep in mind this distinction because although we are soon about to discuss the synthesis of intuition effected by the understanding, it is not until § 26 that we will consider the conditions of intuiting the given appearance.

In cognition (in the proper sense) there are thus two kinds of unity: the subjective and empirical unity of consciousness on the one hand, and the objective and pure unity of consciousness on the other. The former is entirely contingent; the latter is a necessary unity of consciousness. Empirical consciousness depends

⁴²⁹ B 137–138.

⁴³⁰ B 139.

on empirical conditions, as Kant notes, and the empirical unity of consciousness, “through association of the representations, itself concerns the appearance”.⁴³¹ Although the empirical unity of consciousness is empirical *apperception* and although by association of representations Kant refers to *conscious* reproduction, it concerns the appearance, which of course is the basis of empirical *apperception* but not the object of cognition. This is perhaps the most difficult part of the Deduction because it concerns something of which we cannot, as such, be conscious. Inner sense presents us a subjective unity of consciousness, but the objective unity of consciousness transcends this consciousness. Our consciousness consists in the cognition that is already conceptual and judgmental, and here we are required to abstract from that element of cognition. Discussion on the Schematism will, I hope, bring some light to this but here we will have to concentrate more on what the objective unity of consciousness is than on how our empirical cognition is related to the appearance.

Although the appearance must be given to the understanding through inner sense, the objective unity of consciousness grounds the empirical synthesis required for empirical *apperception*:

The pure form of intuition in time, on the contrary, merely as intuition in general, which contains a given manifold, stands under the original unity of consciousness, solely by means of the necessary relation of the manifold of intuition to the one *I think*, thus through the pure synthesis of the understanding, which grounds *a priori* the empirical synthesis.⁴³²

Therefore, empirical cognition is possible only because of the necessary relation of the manifold contained in the pure form of intuition in general in time to the original unity of conscious-

⁴³¹ B 140.

⁴³² B 140.

ness. This does not concern the appearance at all but only the pure form of intuition in general in inner sense. In § 19 Kant clarifies this further by explaining what judgement is: it is "the way to bring given cognitions to the *objective* unity of apperception."⁴³³ A judgement in accordance with the laws of association would be something like "If I carry a body, I feel the pressure of weight," and it could not give an objective relation between the given cognitions.⁴³⁴ The intriguing thing here is that without the capacity to judge we could not even reach the point where we would be in a position to make such a judgement, because the cognitions themselves, the perceptions that are associated with each other, presuppose the very same capacity, for they are not mere intuitions but objects of cognition, hence products of the understanding.

Kant showed already in § 10 that the same function that gives unity to cognitions in a judgement also gives unity to mere synthesis of different representations in an intuition, and now we know that the ground of this unity is the original synthetic unity of apperception. In § 20 Kant concludes that as the categories are the functions for judging, the manifold in a given intuition necessarily stands under the categories. Again, it must be emphasized that this does not say anything about the undetermined object of an empirical intuition. It merely states that "all manifold, insofar as it is given in *one* empirical intuition, is *determined* in regard to one of the logical functions for judgment".⁴³⁵ The conclusion thus states that *all* objects of cognition stand under the categories.

In § 21 Kant says that in this conclusion a beginning of a deduction is made. In that Deduction, we need to understand what cognition, the act, really requires. Sections 21–23 do not contribute anything substantial to the argument itself, but in those sections, Kant draws the distinction between thinking and cognizing

⁴³³ B 141.

⁴³⁴ B 142.

⁴³⁵ B 143.

– a distinction, which he has already explained in the A Deduction.

Understanding this distinction is crucial for understanding the Deduction. Kant said in the proof presented in sections 15–20 that in it he could not abstract “from the fact that the manifold for intuition must already be *given* prior to the synthesis of understanding and independently from it”.⁴³⁶ So far, Kant has considered our understanding as a capacity to think. Since our understanding does not cognize anything at all by itself, it needs an intuition that is given to it prior to its act. We can thus see that the proof Kant has presented considers only thinking. What it proves is that the manifold in a given intuition – a sensible intuition like ours or some other kind of given intuition – necessarily stands under the categories. However, it proves neither the objective reality of the categories nor their validity in regard to the appearances. This is simply because the proof does not say anything about the appearances to which the categories are supposed to be applied. In his proof Kant has abstracted from the way in which the manifold for an empirical intuition is given and proved only that our understanding is such that it needs to produce the object it thinks and that all determination of the objects of intuition presuppose that the manifold in the intuition stands under the categories, because otherwise this determination would be impossible.

Now, since the objects of sensibility do not depend on the functions of the understanding, it follows from Kant’s position that the understanding thinks something in the appearances that really does not belong to those objects of sensibility as such. The laws of nature are prescribed by the understanding, not by sensibility, and Kant must explain “the possibility of cognizing *a priori through categories* whatever objects *may come before our*

⁴³⁶ B 145.

senses".⁴³⁷ This will explain "the possibility of as it were prescribing the law to nature and even making the latter possible",⁴³⁸ and it will show the validity of the categories in regard to all possible objects of our senses.

In order to attain this goal Kant will have to continue the Deduction in two separate steps, which are taken in § 24 and § 26. In the beginning of the Deduction Kant could not abstract from the fact that our understanding needs an intuition given to it prior to its synthesis, and indeed the categories extend to objects of intuition in general. They are mere forms of thought which yield cognition only through their possible application to empirical intuition.⁴³⁹ Now, our sensible intuition can be either pure or empirical, and Kant separates these so that in § 24 he considers only pure intuition and its relation to the categories.

The section starts with a difficult paragraph, which we can split in two. The first part considers the mere act of thinking an object:

The pure concepts of the understanding are related through the mere understanding to objects of intuition in general, without it being determined whether this intuition is our own or some other but still sensible one, but they are on this account mere *forms of thought*, through which no determinate object is yet cognized. The synthesis or combination of the manifold in them was related merely to the unity of apperception, and was thereby the ground of the possibility of cognition *a priori* insofar as it rests on the understanding, and was therefore not only transcendental but also merely purely intellectual.⁴⁴⁰

⁴³⁷ B 159.

⁴³⁸ B 159.

⁴³⁹ B 147.

⁴⁴⁰ B 150.

Up to this point Kant has focused on the intellectual act of representing an object of thought. The categories are pure concepts of objects, and without them, we could not perform the posterior cognitive act through which the object of cognition is represented. In the Subjective Deduction Kant said that the pure concept of the transcendental object (= X) “is that which in all of our empirical concepts in general can provide the relation to an object”.⁴⁴¹ Explicating this relation is the core task of transcendental logic, which teaches how to bring pure synthesis of representations to concepts.⁴⁴² In A 109 Kant continued by noting that “this concept cannot contain any determinate intuition at all, and therefore concerns nothing but that unity which must be encountered in a manifold of cognition insofar as it stands in relation to an object.” In the Subjective Deduction, he had explained that “appearances themselves are nothing but sensible representations, which must not be regarded in themselves, in the same way, as objects (outside the power of representation).”⁴⁴³ In other words, perceptual awareness does not have intentional content. What establishes the relation to an object in cognition is the intellectual synthesis. Here Kant’s point is the same, although he does not use the term “transcendental object”.

However, the posterior act of cognition does not consist in the intellectual act alone. The categories are concepts of objects of thought and although they contain the synthesis that is necessary for thinking an object, they cannot contain any determinate intuition at all. In A 97 Kant pointed out that in the thought of an object “there is more at work than the single faculty of thinking, namely the understanding” and then continued by noting that “the understanding, as the faculty of *cognition* that is to be related to objects, also requires an elucidation of the possibility of this relation” (my emphasis). He then analysed the understanding by ana-

⁴⁴¹ A 109.

⁴⁴² A 78 / B 104.

⁴⁴³ A 104.

lysing synthesis. He did so because the posterior act of cognition requires a pure sensible synthesis of imagination. This is so despite the fact that imagination (which effects synthesis) belongs to sensibility. The intellectual synthesis is merely a ground of the possibility of cognition, and for cognizing an object we also need to relate the purely intellectual act to sensibility:

Hence we say that we cognize the object if we have effected synthetic unity in the manifold of intuition.⁴⁴⁴

In the Subjective Deduction we learned that this requires transcendental reproduction and that recognition includes the same pure synthesis that is required for representing appearances. Here in the B Deduction Kant wants to avoid analysing our faculties, but the fact remains that our understanding can be considered either as a faculty of thinking or as a faculty of cognition. That is why Kant said in § 21 that in the beginning of the Deduction he could not abstract from the fact that the manifold of intuition must be given to the synthesis of understanding independently from it. In the A edition Kant had to take the matter of intuition into account, but now the argument rests on the formal conditions of space and time.

Since our intellect itself is not capable of giving the required manifold of intuition, our apperception is not a capacity of cognition, and the posterior act of cognition, the act of the understanding, includes more than an intellectual synthesis. The understanding, as a faculty of *cognition*, must thus contribute something more to cognition besides the mere intellectual synthesis, and this it does through inner sense:

But since in us a certain form of sensible intuition *a priori* is fundamental, which rests on the receptivity of the capacity for

⁴⁴⁴ A 105.

representation (sensitivity), the understanding, as spontaneity, can determine inner sense through the manifold of given representations in accord with the synthetic unity of apperception, and thus think synthetic unity of the apperception of the manifold of *sensible intuition a priori*, as the condition under which all objects of our (human) intuition must necessarily stand, through which then the categories, as mere forms of thought, acquire objective reality, i.e., application to objects that can be given to us in intuition, but only as appearances; for of these alone are we capable of intuition *a priori*.⁴⁴⁵

Kant's claim is that the categories get their objective reality by virtue of the capacity of the understanding to determine inner sense. As the inner sense is a genuine sense, the understanding can as spontaneity "determine inner sense through the manifold of given representations". The appearances, which are undetermined objects of intuition, are represented in inner sense and they depend on the form of our sensible intuition. The determination of inner sense, Kant says, takes place "through" the manifold of these given appearances. Remember that the appearance, although it is a pure intuition, is represented through sensation, which is a merely subjective representation. When I think that the pen on my desk is brown, the determination of inner sense takes place through the empirical intuition and it involves empirical concepts. Thus, without an empirical manifold the thought would be impossible, but what the understanding determines in inner sense is the pure form of intuition (in the Schematism Kant explains how this determination takes place). Kant can therefore conclude that the understanding can "think synthetic unity of the apperception of the manifold of *sensible intuition a priori*, as the condition under which all objects of our (human) intuition must necessarily stand".⁴⁴⁶

⁴⁴⁵ B 150–151, translation modified.

⁴⁴⁶ B 150.

In order to understand this conclusion, we need an explanation of what Kant means by saying that all objects of intuition must stand under the synthetic unity of apperception. Let us look at what Kant said about the transcendental object in the A Deduction:

Now this concept cannot contain any determinate intuition at all, and therefore concerns nothing but that unity which must be encountered in a manifold of cognition insofar as it stands in relation to an object. This relation, however, is nothing other than the necessary unity of consciousness, thus also of the synthesis of the manifold through a common function of the mind for combining it in one representation.⁴⁴⁷

In this passage Kant took the same step he is now taking from the synthetic unity of the concept of a transcendental object to the synthetic unity of the apperception of the manifold of sensible intuition *a priori*. In the A Deduction Kant continued by concluding that

all appearances, insofar as objects are to be given to us through them, must stand under *a priori* rules of their synthetic unity, in accordance with which their relation in empirical intuition is alone possible, i.e., that in experience they must stand under conditions of the necessary unity of apperception just as in mere intuition they must stand under the formal conditions of space and time; indeed, it is through those conditions that every cognition is first made possible.⁴⁴⁸

Here in the B Deduction Kant has conducted an inquiry concerning the supreme principle of all intuition in relation to the understanding. He has concluded that the cognition of an empiri-

⁴⁴⁷ A 109.

⁴⁴⁸ A 110.

cal object presupposes that the given object of intuition stands under the unity of apperception; otherwise the cognition would be impossible. It would be impossible because the posterior act of cognition consists not merely in an intellectual synthesis but in a synthesis of the manifold of sensible intuition, and although the prior act of cognition does not involve apperception and the appearances do not depend on the functions of the understanding, the posterior act of cognition would be incapable of producing cognition if the appearances, insofar as objects are to be given to us through them, did not stand under the unity of apperception. But the fact is that we have cognition, so Kant can conclude that in experience all appearances must stand under the categories.

This proves the objective reality of the categories but it does not prove their objective validity because in this proof Kant has abstracted from the way in which the manifold for an empirical intuition is given. Although we now know that the understanding can think of an object of intuition only through the categories, we do not know whether or not the appearances that our sensibility offers through the prior cognitive act are necessarily such that the categories are valid for them. This is because so far Kant's purpose has been "to attend only to the unity that is *added* to the intuition through the understanding by means of the category."⁴⁴⁹

Kant's purpose in § 24 has thus been to show that the understanding can determine inner sense.⁴⁵⁰ This is vital to the Deduction because the appearances are represented in inner sense prior to and independently of the posterior act of cognition. Kant can now introduce the synthesis included in the posterior act of cognition but not included in the category and thereby make a

⁴⁴⁹ B 145, my emphasis.

⁴⁵⁰ Unfortunately, this is blurred in the translation by Guyer and Wood, because their translation reads "the understanding, as spontaneity, can determine the manifold of given representations" whereas Kant means to say that it is inner sense that is determined through the manifold of given representations.

necessary preparation for § 26, where he proves the objective validity of the categories:

This *synthesis* of the manifold of sensible intuition, which is possible and necessary *a priori*, can be called *figurative* (*synthesis speciosa*), as distinct from that which would be thought in the mere category in regard to the manifold of an intuition in general, and which is called combination of the understanding (*synthesis intellectualis*); both are *transcendental*, not merely because they themselves proceed *a priori* but also because they ground the possibility of other cognition *a priori*.⁴⁵¹

In itself this passage does not yet help much, but the fact that the posterior act of cognition necessarily involves a figurative synthesis leads us to the origin of this synthesis:

Yet the figurative synthesis, if it pertains merely to the original synthetic unity of apperception, i.e., this transcendental unity, which is thought in the categories, must be called, as distinct from the merely intellectual combination, the *transcendental synthesis of the imagination*. **Imagination** is the faculty for representing an object even *without its presence* in intuition. Now since all of our intuition is sensible, the imagination, on account of the subjective condition under which alone it can give a corresponding intuition to the concepts of the understanding, belongs to *sensibility*; but insofar as its synthesis is still an exercise of spontaneity, which is determining and not, like sense, merely determinable, and can thus determine the sense *a priori* in respect of its form in accordance with the unity of apperception, the imagination is to this extent a faculty for determining the sensibility *a priori*, and its synthesis of intuitions, *in accordance with the categories*, must be the transcendental synthesis of the *imagination*, which is an effect of the understanding on sensibility and its

⁴⁵¹ B 151.

first application (and at the same time the ground of all others) to objects of the intuition that is possible for us.⁴⁵²

Kant explains here the peculiar role of imagination in the posterior act of cognition. Through imagination the understanding is capable of affecting inner sense. For a Wolffian reader this conclusion should not be hard to accept, for according to Wolff, imagination is the faculty for producing representations (ideas) of absent sensible things,⁴⁵³ and the posterior act must, according to Kant, produce the object of thought without its presence in intuition. The appearances are, of course, intuitions and they are represented in inner sense independently of the posterior act, but without the posterior act they do not *represent* objects at all; they *are* objects. Human cognition thus involves an act of using an appearance as a representation of an object. The object itself is produced by an intellectual act through the categories, but in order to grasp the appearance the human mind needs imagination. We have learned above that the understanding can think the synthetic unity of the apperception of an *a priori* manifold of sensible intuition, and Kant explains in the latter part of § 24 (B 153) that the understanding cannot take intuitions up into itself, even if they were given in sensibility. Consequently, the understanding must include a capacity which in itself belongs to *sensibility*. This capacity is imagination, which also in Wolff's philosophy belongs to sensibility. The most peculiar thing about this is that the understanding must be capable of using the form of *outer* sense in the production of the representation of the object, because only through a spatial representation can we apperceive the product of the transcendental imagination. In B 154 Kant illustrates this by explaining that not only acts like thinking of a line or a circle but also the representation of time requires that we act on the pure

⁴⁵² B 151–152, translation modified.

⁴⁵³ Wolff, *Psychologia empirica*, § 92.

form of space. In § 25 Kant explains that cognition of ourselves is not possible through mere apperception because it lacks the intuition required for cognition. Inner sense is thus a genuine sense which imagination can affect, and the posterior act of cognition is dependent on the capacity of imagination to determine sensibility *a priori*.

This ends the top-down part in which we have arrived at the conclusion on which the A Deduction was grounded: the understanding is not an original faculty but analysable to the faculties of apperception and imagination. However, this time the argument will not be grounded on the identity of the *faculty* that grounds both the prior and the posterior act of cognition but on the identity of the *unity* required for the objects of those acts. In § 26 Kant will now complete the argument with a short bottom-up part in which he considers how an empirical intuition is given to the understanding in sensibility. The change in the argument structure will allow Kant to omit discussion on the faculty of imagination itself, so that we need not know that the productive imagination has its ground in transcendental reproduction. There is thus no need to explain how the synthesis of apprehension in the intuition and the synthesis of reproduction in the imagination are related to each other. Neither does Kant have to make a distinction between a transcendental and an empirical synthesis of apprehension. All he needs to do is to consider, in the light of the Transcendental Aesthetic, the formal conditions of sensibility in our cognition of an object.

Kant begins by explaining what the synthesis of apprehension is:

First of all I remark that by the *synthesis of apprehension* I understand the composition of the manifold in an empirical

intuition, through which perception, i.e., empirical consciousness of it (as appearance), becomes possible.⁴⁵⁴

Kant's purpose is to explain what our human cognition contains by setting aside that which is brought to it by the intellectual synthesis. In the A Deduction, we saw that by "perception" Kant means the kind of consciousness animals are not capable of and where the effect of the first application of the understanding is already present. The possibility of this consciousness rests on a synthesis, because perception presupposes an image where a manifold is represented in one representation.⁴⁵⁵ In other words, cognition presupposes the prior act of cognition, which gives unity to the empirical intuition. However, Kant is not here analysing the prior act but the posterior act, and the latter includes a synthesis of apprehension.

Now, as we have already learned, this empirical synthesis has its ground in a pure synthesis:

We have *forms* of outer as well as inner sensible intuition *a priori* in the representations of space and time, and the synthesis of the apprehension of the manifold of appearance must always be in agreement with these, since it can only occur in accordance with this form.⁴⁵⁶

Kant said in the Transcendental Aesthetic (A 21/B 35) that the form of intuition consists in extension and figure. We have learned that mere *sense* cannot give us these, and in the A Deduction Kant showed that besides sense also imagination is required for extension and figure. In the bottom-up part of the A Deduction (A 120) Kant said that in apprehension the imagination

⁴⁵⁴ B 160.

⁴⁵⁵ I will return to the question of how images can become perception in chapter 9.

⁴⁵⁶ B 160.

brings the manifold of intuition into an image. In the B Deduction Kant does not mention images but in the Schematism they play a key role, and I think that it is useful here to consider how the above quote fits with Kant's view on the possibility of representing images. I have argued that Kant thought that our ability to represent images depends on the ability to have *representations of* space and time to which the mere form of sense is inadequate. In the above passage Kant says that we have the forms of intuition in the representations of space and time. Now, it has been my hypothesis that Kant adopted Tetens' conception of inner sense, and if I am correct in making this hypothesis, then Kant thought that an image can be represented only by affecting inner sense, because images do not consist of a mere manifold of pure intuition. An image contains the forms of intuition – representations of space and time – and this is possible only through an act that affects inner sense and produces the image. In sections 24 and 25 Kant's aim was to convince the reader that inner sense really is a sense which can and must be affected by imagination in order to perform the posterior act of cognition. In this act, Kant said, the understanding must determine inner sense. Presumably, then, the undetermined object of an empirical intuition must be represented in inner sense prior to the posterior act, for otherwise it would be hard to see how this object could be determined by determining inner sense. In the A Deduction we learned that an appearance, a modification of inner sense, is in space *and* time, i.e. that an appearance is not contained in a single moment. It is thus not only spatially extended but temporally extended as well. Since the synthesis of apprehension of an *empirical* manifold can occur only in accordance with this *pure* form, it must always be in agreement with the latter. This was explained under the heading "On the synthesis of apprehension in the intuition" in the A edition, and there Kant concluded that there is not only an empirical synthesis of apprehension but also a pure one. All this still holds

but in the B Deduction Kant has a different strategy, and now we should see how it is different.

Kant first reminds us of what was explained in § 17:

But space and time are represented *a priori* not merely as *forms* of sensible intuition, but also as *intuitions* themselves (which contain a manifold), and thus with the determination of the *unity* of this manifold in them (see the Transcendental Aesthetic).⁴⁵⁷

To this Kant adds a note where he makes a distinction between the form of intuition and formal intuition. He explains in this note that as geometry shows, space can be represented as object, which presupposes a unity of representation. This unity precedes all concepts, and it makes all *concepts* of space and time possible, as space and time as intuitions are given to the understanding through it.⁴⁵⁸

By formal intuition Kant means a conscious representation of space or time. In the above quote, he says that space and time are represented with the *determination* of the unity of the manifold in them. Although the mere image presupposes a unity, which is provided by the form of intuition (and by synthesis), the unity cannot be represented as *determined* without apperception. Here we must remember what Kant said in § 17:

⁴⁵⁷ B 160.

⁴⁵⁸ More could be written about the distinction between the form of intuition and formal intuition but I deliberately cut the story short here, because it is a relatively simple matter and I do not want to distract the reader's attention away from the simplicity of the argument of the Deduction. All we need to know is that a representation of a pure manifold as intuition presupposes a unity of representation, and I have discussed this earlier in this monograph. However, I will return to the issue in chapter 9.

Thus the mere form of outer sensible intuition, space, is not yet cognition at all; it only gives the manifold of intuition *a priori* for possible cognition. But in order to cognize something in space, e.g., a line, I must *draw* it, and thus synthetically bring about a determinate combination of the given manifold, so that the unity of this action is at the same time the unity of consciousness (in the concept of a line), and thereby is an object (a determinate space) first cognized.⁴⁵⁹

It is important to understand that although a determinate space or time cannot be represented without apperception, the object of this representation is an intuition, and consequently “the unity of this *a priori* intuition belongs to space and time, and not to the concept of the understanding”.⁴⁶⁰ Kant clarifies this in the note to § 17:

Space and time and all their parts are *intuitions*, thus singular representations along with the manifold that they contain in themselves (see the Transcendental Aesthetic), thus they are not mere concepts by means of which the same consciousness is contained in many representations, but rather are many representations that are contained in one and in the consciousness of it; they are thus found to be composite, and consequently the unity of consciousness, as *synthetic* and yet as original, is to be found in them.⁴⁶¹

In other words, even though a representation of a determinate space or time presupposes apperception, the synthesis is a coordinative synthesis and its unity is not provided by the original unity of apperception but by the singularity of space and time.

Now, since the unity of the consciousness of a formal intuition presupposes a synthesis (a line must be drawn etc.), the

⁴⁵⁹ B 137–138.

⁴⁶⁰ B 161n.

⁴⁶¹ B 136n.

representation of the unity presupposes a unity of synthesis (because without it the *consciousness* of the intuition would be impossible):

Thus even *unity of the synthesis* of the manifold, outside or within us, hence also a *combination* with which everything that is to be represented as determined in space or time must agree, is already given *a priori*, along with (not in) these intuitions, as condition of the synthesis of all *apprehension*.⁴⁶²

Remember that combination is, according to § 15, the representation of the synthetic unity of a manifold, and it consequently belongs to the understanding. In § 24 Kant showed that the posterior act of cognition must, through a figurative synthesis, use the appearance as a representation to which the categories assign an object. In order to achieve this, the understanding must have a representation of the synthetic unity of the appearance, which presupposes a unity of synthesis. Kant has now shown that everything that can be represented in space and time, presupposes this unity of synthesis. Therefore, if we take a look back at the supreme principle of the possibility of all intuition in relation to sensibility, which according to the Transcendental Aesthetic is that all the manifold of sensibility stands under the formal conditions of space and time, we see that all synthesis of apprehension stands under the condition of the unity of the synthesis of the manifold of sensibility.

Let us now compare this with the principle of the possibility of all intuition in relation to the understanding, according to which all the manifold of intuition stands under conditions of the original synthetic unity of apperception.⁴⁶³ All the manifold representations of intuition stand under this principle insofar as they must be capable of being combined in one consciousness, and

⁴⁶² B 161.

⁴⁶³ B 136.

they stand under the previously mentioned principle insofar as they are given to us (to the understanding). But now it is clear that the unity of the synthesis of the sensible manifold is given to us *a priori*, because there is only one time and one space and because all empirical synthesis stands under the formal conditions of space and time. Although space and time do not *contain* any combination, combination is given along with them, because every given intuition necessarily contains a unity of synthesis, and since the understanding can represent the intuition it must also represent the synthetic unity (combination is not given in them).

In the above passage Kant says that the unity of synthesis and even the representation of it (combination) is given as condition of the synthesis of all apprehension. This confirms that by apprehension, Kant in fact means the conscious synthesis, which produces perception. In the B Deduction Kant does not have to consider the empirical synthesis of the prior act of cognition at all. The prior act itself is not Kant's concern. Thus, at the beginning of § 26 he has said that he is about to explain "the possibility of cognizing *a priori through categories* whatever objects *may come before our senses*, not as far as the form of their intuition but rather as far as the laws of their combination are concerned".⁴⁶⁴ Therefore, he is interested in apprehension of objects as far as *the laws of their combination* are concerned, i.e. self-conscious apprehension.

According to the interpretation I have here constructed based on my hypothesis, Kant thinks that forming perception out of the raw data of the senses requires two acts: the act of representing the appearance, and the act, which uses this appearance as a representation in thinking an object for it. One should, however, note that in human perception empirical reproduction and association constantly aid our apprehension and that there is no clear-cut distinction between the two acts, because our associations are

⁴⁶⁴ B 159.

conceptual. Once we have entered the world of perception, we cease to apprehend our surroundings the way animals do. Nevertheless, perception has its ground in mere images, which do not contain anything conceptual, and ultimately our perception requires two cognitive acts. The sensible synthesis itself (of the prior act) is an effect of the imagination, which belongs to sensibility. In the figurative synthesis of the understanding this synthesis is self-conscious but its unity is still an intuitive unity, not a unity of apperception.

Now, it is important to understand that the appearance, the object of the prior act, is what the posterior act uses as representation. Therefore, based on what we have found out in § 24, the posterior act includes the same *a priori* act that in the prior act produces the appearance, and the image is made possible by the same synthetic unity that makes the figurative synthesis of § 24 possible. Both the prior and the posterior act of cognition therefore include the same *a priori* act of sensibility. Consequently, we can think everything that can come before our senses. On the other hand, the intellectual synthesis of the understanding consists in the same synthetic unity in which the pure sensible synthesis consists, but without the unity of our sensible intuition. It is the same pure synthesis *generally represented* and its unity is provided by the original apperception. Kant can, therefore, conclude that all synthesis stands under the categories:

But this synthetic unity can be none other than that of the combination of the manifold of given *intuition in general* in an original consciousness, in agreement with the categories, only applied to our *sensible intuition*. Consequently all synthesis, through which even perception itself becomes possible, stands under the categories, and since experience is cognition through connected perceptions, the categories are con-

ditions of the possibility of experience, and are thus also valid *a priori* of all objects of experience.⁴⁶⁵

The pure synthesis of the categories is the same pure synthesis that is required for representing objects in sensible intuition. This allows us to subsume intuitions under concepts and proves the objective validity of the categories.

In this proof, it is important to keep in mind two distinctions. The first distinction is between the prior and the posterior act and their products. Appearances are products of the prior act of cognition. They are objects of an empirical intuition, but without the posterior act they do not represent objects outside the power of representation. They are not ideas and they do not have intentional content. In order to represent an object for the product of the prior act, we need the posterior act of cognition.

The second distinction is between the two syntheses required for the posterior act. In order to represent an object outside the power of representation, we need a pure *a priori* synthesis generally represented. However, the posterior act also includes a pure *a priori* synthesis of a sensible manifold without which the appearances could not be taken up into human consciousness. By means of this figurative synthesis the appearance, which is a mere modification of the mind in inner sense, can be used as a representation, and by means of the categories this representation can represent an object.

The B Deduction is an inquiry into the unity of representations. In § 20 Kant concluded that a manifold given in one intuition necessarily stands under the categories. In other words, any self-consciously represented given intuition stands under the categories, because categories give to all self-conscious representations their necessary unity. However, categories are mere forms of thought. The synthesis in them is purely intellectual and it

⁴⁶⁵ B 161.

alone does not yield cognition. In § 24 Kant argues that the categories are objectively real, because as a faculty of *cognition* the understanding can determine sensibility *a priori* through imagination. In § 26, finally, Kant proves the objective validity of the categories by showing that “everything that may ever come before our senses must stand under laws that arise *a priori* from the understanding alone.”⁴⁶⁶ Kant’s argument rests on the connection between sensible and intellectual unity. The synthetic unity of the figurative synthesis is the unity of the combination of the manifold of given intuition in general, but applied to sensible intuition. In other words, when the understanding determines sensibility through imagination, it represents consciously a unity of sensible intuition. This unity must be the unity of the intellectual synthesis described in § 20, but without the intellectual synthesis the figurative synthesis does not represent an object of cognition. On the other hand, the intellectual synthesis does not by itself yield cognition.

Transcendental imagination and transcendental apperception are thus both capacities necessary for the understanding as a faculty of cognition. However, the B Deduction does not rest on an analysis of the understanding but on an analysis of the unity of synthesis. Apprehension requires a unity of sensible synthesis, so the very same synthetic unity, which is represented generally in the categories, is a condition of all apprehension. Further, since the unity of the appearances, represented through the prior cognitive act, is the unity of the figurative synthesis, through which that unity is self-consciously represented in the posterior cognitive act, everything that can come before our senses necessarily stands under the categories.

⁴⁶⁶ B 160.

8. THE SCHEMATISM

In the Deductions Kant has explained what is common to the acts of sensibility and understanding in cognition. He has also explained how perception differs from mere images and how the ingredient of perception, the thought “There is an object”, which according to Tetens is produced by an act reducible to the act that produces images, in fact requires the original faculty of apperception and therefore is not reducible to that act. Nevertheless, the transcendental synthesis required for images is the same synthesis as the one required for perception. Only the transcendental ground of the unity of synthesis in perception is different: in perception it is the unity of apperception, which with the transcendental synthesis of imagination produces the thought “There is an object”, as Tetens would say.

However, on the basis of the Deductions alone it is difficult to understand how Kant thinks that the first application of the understanding produces perception out of mere images. In the Schematism he explains this, to the extent it is possible to explain an act hidden behind consciousness. An empirical concept, Kant says, is “related immediately to the schema of the imagination, as a rule for the determination of our intuition in accordance with a certain general concept.”⁴⁶⁷ A concept is thus never directly related to an image, which is the product of a schema. Therefore, an image already presupposes a rule of the imagination, and that very same rule is the basis for the corresponding concept. The act of the understanding in producing perception is not, therefore, an act involved with the image itself but with the schema of imagination, and when a subject is about to become conscious of appearances he or she is already in possession of the rules required for consciousness. Consciousness is, in fact, consciousness of those

⁴⁶⁷ A 141 / B 180.

rules, and apperception is what gives them the unity required for concepts.

Let us return to the discussion presented in section 1.3, where I suggested that the Schematism was influenced by Tetens' theory of sensible abstractions. I proposed a reading according to which the empirical intuition, which provides the ground for the prior act of cognition, is not the object (the appearance), which the posterior act of cognition uses as representation. According to this reading, an appearance is an object represented in inner sense. The content to be subsumed under the categories is thus not in the empirical intuition but in the product which the imagination makes, i.e. in the appearance.

We saw at section 3.1 that Pendlebury has accused Kant of lax use of the term "subsumption". Let us return to what Pendlebury says:

Kant equates "the *subsumption* of intuitions under pure concepts" and "the *application* of a category to appearances [i.e., to empirical objects]" (my emphasis). This is a little misleading, for subsumption and application are different kinds of relation. Notwithstanding Kant's frequently lax use of the term (as in the first sentence of the Schematism), subsumption is a relation between representations and representations (where "representations" are ideas, which include both concepts and intuitions). Application, on the other hand, is a relation between representations and the things which they represent.⁴⁶⁸

Now we can see that this accusation is groundless. There is nothing wrong with Kant's use of the terms "subsumption". Both the application of concepts and the subsumption of appearances under concepts are relations between the products of intuiting and concepts.⁴⁶⁹ Pendlebury's accusation is a result of the

⁴⁶⁸ Pendlebury, "Making sense of Kant's Schematism", 779.

⁴⁶⁹ According to Kant all "representations, as representations, have their object, and can themselves be objects of other representations in turn"

common misconception according to which Kant thought that our empirical representations are ideas.

My reading also explains how Kant thought that a third thing can help to fulfil the homogeneity-requirement. This has puzzled commentators, and also Pendlebury, whose reading is otherwise compatible with my reading, finds Kant's solution unacceptable.⁴⁷⁰ The issue is most pressing with the categories (since they are totally heterogeneous with spatiotemporal appearances), and we should now consider their relation to appearances.

Concepts consist, according to Kant, in the consciousness of the unity of synthesis, and the unity depends on one consciousness.⁴⁷¹ We must pay attention to the fact that schemata are rules for synthesis in *one* time. If transcendental schemata consist in those *a priori* rules that are required for perceiving spatiotemporal objects and if the categories consist in the consciousness of those rules, then not only the categories but also the appearances are homogeneous with the schemata, because they are produced through those very same rules that are represented in the categories. In representing an appearance, one time (and one space) provides the unity for synthesis, and the synthesis is a mere effect of the imagination. In thought, by contrast, the unity of synthesis depends on one consciousness, as the product is no longer an intuition. Thus we can arrive at the following conclusion:

Now a transcendental time-determination is homogeneous with the *category* (which constitutes its unity) insofar it is *universal* and rests on a rule *a priori*. But it is on the other hand homogeneous with the *appearance* insofar as *time* is

(A 108). The object of an empirical intuition thus is a representation, and, indeed, an intuition.

⁴⁷⁰ Pendlebury, "Making Sense of Kant's Schematism", 782.

⁴⁷¹ A 103.

contained in every empirical representation of the manifold.⁴⁷²

However, the appearances themselves are *not* homogeneous with the categories, because they do not consist in rules and they are singular representations. Time itself is of course heterogeneous with the categories but the time-determination that every appearance presupposes rests on a rule that a category represents in general.⁴⁷³ Hence a third thing does indeed solve the problem of heterogeneity.

Krausser sees a problem with Kant's statement that time is contained in every empirical representation, because according to the Transcendental Aesthetic, time is a form of intuiting and it therefore cannot, according to Krausser, be contained in any representation.⁴⁷⁴ According to my reading, however, there is no such problem. I agree with Pendlebury when he notes that "a momentary thing, however dog-like it may be, cannot be a dog."⁴⁷⁵ Time as the form of inner sense does not by itself make an appearance persist in time, just as space as the form of outer sense does not by itself give appearances their shape. When a dog moves, its shape changes, but the dog remains the same. It would be impossible to perceive this change if time was not contained in the appearance of the dog. The perceiver must represent the dog of this moment to be the same object as the dog a moment before.⁴⁷⁶

Allison is thus on the right track when he says that "a transcendental schema is to be construed as a pure intuition".⁴⁷⁷ In

⁴⁷² A 138–139 / B 177–178.

⁴⁷³ A 138 / B 177.

⁴⁷⁴ Krausser, "Kant's Schematism of the Categories", 179.

⁴⁷⁵ Pendlebury, "Making Sense of Kant's Schematism", 790.

⁴⁷⁶ It is, however, important to note that the sameness is not represented consciously: it is not recognition, which is conceptual.

⁴⁷⁷ Allison, *Kant's Transcendental Idealism*, 180.

my opinion, Allison is right in holding the view that the distinction between the form of intuition and formal intuition is relevant to schematism.⁴⁷⁸ However, I see a problem with Allison's account, because although I think he is right in claiming that a formal intuition produced by synthesis is a sensible "presentation" of a concept,⁴⁷⁹ I do not think that a formal intuition needs a concept to be produced. It is the imagination alone that produces the intuition. Allison's failure to understand this is connected to his misguided conception of Tetens' theory of inner sense, in which Allison seems to rely on the interpretation given by T. D. Weldon and Robert Paul Wolff.⁴⁸⁰ Ironically, the major reason Allison gives for not accepting that Kant was influenced by Tetens' theory of inner sense, is that the latter "ignores the sharp contrast that Kant draws between apperception and inner sense."⁴⁸¹ As we have seen, however, this contrast is at the very heart of Tetens' philosophy.

A formal intuition can of course be construed in accordance with a concept, e.g. in geometry, but the intuition itself is always a product of imagination. It should here be noted that a formal intuition is not only independent of concepts: it does not necessarily require a schema either, for in apprehension of an unknown object there is no schema of its shape, (the same applies to the apprehension of an event regarding time). The apprehension nevertheless requires action of the faculty of imagination.

Here we arrive at an interesting conclusion, which also Pendlebury realizes to the extent it is possible on the assumption that intuitions are ideas. An appearance cannot be apprehended without a transcendental schema, and an object cannot be thought without a category. Consequently, an empirical schema must contain a transcendental schema. The Schematism thus explains how

⁴⁷⁸ Allison, *Kant's Transcendental Idealism*, 181. See also B 163 n.

⁴⁷⁹ Allison, *Kant's Transcendental Idealism*, 182.

⁴⁸⁰ Allison, *Kant's Transcendental Idealism*, 259–260.

⁴⁸¹ Allison, *Kant's Transcendental Idealism*, 260.

appearances can be subsumed under concepts, because by means of pure imagination we bring into combination the manifold of intuition and the condition of the necessary unity of apperception. Kant explains this by the following:

Both extremes, namely sensibility and understanding, must necessarily be connected by means of this transcendental function of the imagination, since otherwise the former would to be sure yield appearances but no objects of an empirical cognition, hence there would be no experience.⁴⁸²

The transcendental imagination thus connects intuition and apperception. On the one hand, this is because a representation of an object requires a transcendental schema, and on the other hand because the thought of an object requires the same schema (in addition to transcendental apperception, which gives the synthesis the unity that it would otherwise be lacking, as the object of thought is no longer an intuition). If the transcendental imagination did not connect our apperception with intuitions, we would represent appearances but “nothing would be *given* that could be subsumed under a concept”. In that case we would have to conclude with Kant that “*all* subsumption becomes impossible.”⁴⁸³

This interpretation explains why we do not need apperception for representing objects, although we do need it for what Kant calls perception. In cognition, the function of transcendental apperception is to give unity to synthesis. When the representation produced by synthesis is an intuition, the transcendental use of sense provides synthesis with its unity, and thus *objective* intuitions are always by themselves representations of a manifold in one representation. These intuitions are coordinative representations, and it is only when we come to think of our intuitions, i.e.

⁴⁸² A 124.

⁴⁸³ A 247/ B 304, my emphases.

in subordination, that we need the unity of apperception to give synthesis its unity. This is effected through a transcendental schema, and the fact that we manage to think about appearances already proves the objective validity of the categories in regard to our appearances. This is what Kant means in the Preface to the A edition, when he says that what is said in pages A 92–93 “should even be sufficient by itself for accepting the validity of the categories.”⁴⁸⁴ The ground for Kant’s statement that only by means of the categories can an object of experience be thought at all, is not the view that apperception is a requirement of representing appearances, but rather the view that the objects to which the categories can be applied are already thought objects.⁴⁸⁵

This interpretation avoids problems other interpretations have encountered. Although Kant says that appearances do not require the functions of the understanding and although he says that synthesis is the effect of the imagination, the majority of commentators have been forced to conclude that he thought that apperception is involved already in mere intuiting. Interpreted that way, Kant seems to be contradicting himself. My claim is that we can avoid that problem if we are more sensitive to the context in which Kant wrote. I have here concentrated on the connection between Kant and Tetens with the aim of showing that the A Deduction can be made intelligible by assuming that Kant’s conception of inner sense was influenced by Tetens. On the other hand, I have claimed that the B Deduction, although it is perfectly

⁴⁸⁴ A XVII.

⁴⁸⁵ This position was anticipated by Tetens who had already generalized Hume’s problem and thought that the objects of thought contain an objective necessity which is not derived from experience. Nevertheless, also Tetens thought that the mere representing of objects does not contain anything conceptual. In Tetens, reflected representations are ideas, but Kant is forced to abandon this view. The categories have objective validity but for speculative purposes, there is no legitimate transcendental use of them.

compatible with the A Deduction, can be best understood through Wolff's philosophy, so my claim is not so much that the *Critique* relies on Tetens' work – my claim is that understanding the historical context is the key to avoiding the problems that commentators have encountered. In the final chapter, I will now consider three interpretations of the B Deduction with the aim of showing that my interpretation solves the problems these interpretations face.

9. DISCUSSION

At the end of the chapter on the Metaphysical Deduction I explained how I think my interpretation allows us to view that section as an independent argument, and I compared this with the views presented by two commentators, Henry Allison and Béatrice Longuenesse, both of whom, as we saw, think that the Metaphysical Deduction needs support from elsewhere. Both of these commentators have proposed an interpretation of the B Deduction as well. They have also commented on each other's interpretations, and since the B Deduction is the more accessible one of the two objective versions, the views of these two well-known commentators provide a good background against which to compare my own view.

Longuenesse's book *Kant and the Capacity to Judge* is an extremely thorough investigation into Kant's Transcendental Analytic, and it is sensitive to the historical context of Kant's *Critique*. She rightly puts emphasis on Kant's epigenesis of reason, according to which the categories are acquired concepts. Further, she maintains, as also I do, that this model extends not only to the categories but to the form of intuition as well.⁴⁸⁶ Thus, she contends that the act of judging is prior to the categories as reflected concepts, or as full-fledged categories, as she puts it.⁴⁸⁷ I think that Longuenesse's insight is remarkable, and she has been able to find important aspects of Kant's thought that have been generally neglected. Unfortunately, however, she runs into difficulties when trying to connect those findings, and in my opinion, this is because she has not understood correctly the role that inner sense plays in Kant's theory.

⁴⁸⁶ Longuenesse, *Capacity to Judge*, 221–222n; 243–244.

⁴⁸⁷ Longuenesse, *Capacity to Judge*, 199–200.

Longuenesse thinks that rather than Baumgarten or Tetens, it is Locke who influenced Kant in his conception of inner sense.⁴⁸⁸ The reason she gives for holding this view is that Locke had correlated outer sense with space, and inner sense with time. Locke may indeed have influenced Kant either directly or indirectly in this, but I think that the decisive influence on Kant's theory comes from Tetens. Tetens' new conception of inner sense allows Kant to depart from the way of ideas while still rescuing mental impressions from the threat of skepticism. When this is understood, I think that we can understand his view on the acquisition of both pure sensible concepts and pure intellectual concepts without the excessive complexity that I find in Longuenesse's interpretation. It is certainly true that time plays the leading part in this epigenetic theory, but how time plays its role is, in my opinion, best understood by looking at how Wolff's and Tetens' thoughts on reproduction as a requirement for consciousness. Kant had to change the Wolffian conception of sensibility and he concluded that the transcendental use of inner sense (the pure manifold of time) must precede consciousness of composite things. By doing this he could preserve Wolff's two-stage theory of cognition the roots of which can be traced all the way back to Alhazen's theory of vision.

When we interpret Kant in this way, we can free appearances from the supposed tyranny of apperception and see the acquisition of the categories in its true light. The appearances do indeed depend on those *a priori* rules that are generally represented in the categories, but those rules, represented in the transcendental schemata, by no means depend on apperception, because a schema is always a product of the imagination. Along with the pure manifold of space and time, the rules of the transcendental schemata are what is innate in us, and their first application effects appearances in space. Through apperception those appear-

⁴⁸⁸ Longuenesse, *Capacity to Judge*, 234.

ances then become phenomena and we gradually become aware of those schemata and ultimately reflect them as categories.

Longuenesse realizes that the transcendental schemata are prior to the categories but she is unable to divorce the schemata from apperception.⁴⁸⁹ She then tries to explain the original acquisition through the distinction between judgements of perception and judgements of experience, which Kant makes in the *Prolegomena*. Here is how Allison summarises Longuenesse's position:

[J]udgments of perception, on her view, are genuine judgments involving the logical functions rather than mere associations (though they are based on merely associative connections) and, as such, conform to the conditions of the objective unity of apperception. Nevertheless, they do not involve an application of the categories, at least not the 'full-fledged' categories or, as she also puts it, a full-fledged application of them. The latter occurs only in judgments of experience, which alone are fully objective.⁴⁹⁰

Allison considers how Longuenesse's view fits the first part of the B Deduction and concludes that her way of reading § 19 through this distinction is at odds with both § 20, where Kant says that the categories are "nothing other than these functions of judging", and with § 21, where he explains that in the first part of the Deduction he abstracts "from the way in which the manifold for an empirical intuition is given, in order to attend only to the unity that is added to the intuition through the understanding by means of the category."⁴⁹¹

This is indeed true. Kant's purpose in § 19 is to draw attention to the act of *thinking*. He asks us to consider how the rela-

⁴⁸⁹ Longuenesse, *Capacity to Judge*, 116n.

⁴⁹⁰ Allison, "Categories", 69.

⁴⁹¹ Allison, "Categories", 70–71.

tion of given representations in a judgement differs “from the relation in accordance with laws of the reproductive imagination”.⁴⁹² In other words, we should consider what it would be like if we tried to perform an act of thinking based on the relation in accordance with which our empirical imagination reproduces appearances. When we do this, we understand that the act of thinking is not reducible to a subjective relation. It is the act of thinking of an *object*. As Kant says in § 20, regardless of whether the given representations are intuitions or concepts, this act involves the logical function of judgements through which the manifold of given representations is brought under an apperception in general. These functions are the categories, “insofar as the manifold of a given intuition is determined with regard to them”.⁴⁹³ As I explained in chapter 7, the application of transcendental schemata is prior to the act of thinking, but the first application of the understanding is an application of the categories. This application is not, however, an application of reflected concepts, so in that regard Longuenesse is right, but her way of interpreting the role of inner sense in Kant’s theory does not allow her to accept Kant’s claim that appearances (and their empirical reproduction) do not depend on the functions of the understanding.

In my view, then, Longuenesse is unable to build a convincing interpretation of the B Deduction, although she finds aspects of Kant’s philosophy that I think are correct. I shall here argue that the problems that her interpretation faces can be removed if we accept my hypothesis.

⁴⁹² B 141.

⁴⁹³ B 143.

9.1. *The Division of the B Deduction*

Let us first see how the Deduction works. Allison and Longuenesse both agree, as do I, that in the beginning of the Deduction, Kant's argument concerns sensible intuition in general. They also agree that the Deduction is a single proof in two steps. I too think that it is a single proof in two steps but where exactly the parts lie is another story. I have explained above how I think that the division of the proof is comparable to the A Deduction so that it contains a part starting from the top and a part starting from below. Longuenesse notes in her book that this kind of parallelism has been suggested by Benno Erdmann and Herman de Vleeschauwer, but she rejects this interpretation on the grounds that "both moments deal from the outset with the sensible manifold *and* the original synthetic or objective unity of self-consciousness, without presenting either of the progressions of the A Deduction".⁴⁹⁴ Also Allison comments on the view endorsed by Erdmann and de Vleeschauwer and claims that Dieter Henrich has shown conclusively that their model is not applicable to the structure of the B Deduction.⁴⁹⁵ However, all of these commentators see the first part as culminating in § 20 and the second in § 26, whereas I think that the first part ends in § 24 and the second in § 26. In fact, I think that we need to take a fresh look at the role of inner sense in Kant's theory in order to understand that his theory of cognition is a two-act theory and that § 20 is, as Kant says, only the beginning of a deduction. In that section Kant is still considering the top element, namely the unity of apperception, *from* which the first step of the Deduction commences to the transcendental synthesis of imagination.

In considering how to divide the Deduction into parts, it is again vitally important to pay attention to what Kant actually

⁴⁹⁴ Longuenesse, *Capacity to Judge*, 70n.

⁴⁹⁵ Allison, *Idealism*, 134. See also Henrich, "Proof-Structure", 643–644.

says. In § 21 Kant says that at that stage the beginning of a deduction has been made, and he continues that in this deduction,

since the categories arise *independently from sensibility* merely in the understanding, I must abstract from the way in which the manifold for an empirical intuition is given, in order to attend only to the unity that is added to the intuition through the understanding by means of the category. In the sequel (§ 26) it will be shown from the way in which the empirical intuition is given in sensibility that its unity can be none other than the one the category prescribes to the manifold of a given intuition in general according to the preceding § 20; thus by the explanation of its *a priori* validity in regard to all objects of our senses the aim of the deduction will first be fully attained.⁴⁹⁶

Notice how Kant speaks as if the Deduction itself is still ahead of us at this stage. In reading the above passage, we must remember that the subject matter of the inquiry is cognition in which concepts must be related to intuitions. In § 24 Kant will be in a position to explain how the “categories, as mere forms of thought, acquire objective reality”.⁴⁹⁷ At the beginning of § 24 Kant reminds us that the categories are “mere *forms of thought*, through which no determinate object is yet cognized.”⁴⁹⁸ The synthesis in them, Kant continues, was (in the beginning of a deduction) “merely purely intellectual”.⁴⁹⁹ Through this intellectual synthesis alone a discursive understanding can never perform the posterior act of *cognition*. Now, the objective reality of the categories is based on the result of § 20 and the fact that the understanding “can determine inner sense through the manifold of given representations in accord with the synthetic unity of apper-

⁴⁹⁶ B 144–145.

⁴⁹⁷ B 150.

⁴⁹⁸ B 150.

⁴⁹⁹ B 150.

ception".⁵⁰⁰ Thus, the beginning alone cannot prove the objective reality of the categories, let alone their validity, because it does not establish a link between sensibility and understanding. § 20 only tells us that we use the categories in combining the manifold in intuition – it does not reveal anything about the appearances, so it does not answer skepticism. In proving the objective reality, Kant first abstracts “from the way in which the manifold for an empirical intuition is given” and then shows, in § 24, that the imagination is “a faculty for determining the sensibility *a priori*, and its synthesis of intuitions, *in accordance with the categories*, must be the transcendental synthesis of *imagination*”.⁵⁰¹ This synthesis, Kant adds, is the first application of the understanding. Finally, in § 26 he will prove, as he says in the above quote, the objective validity of the categories.

So Kant says very clearly that the objective reality is proved in § 24 and the objective validity in § 26. This is one way of looking at the Deduction as consisting of parts. On the other hand, we may view the Deduction as consisting of a top-down and a bottom-up part. There is thus more than one way in which we can see the Deduction as consisting of two parts. In fact, we can see it as consisting of two or three parts depending on whether we want to see §§ 15–20 as belonging to the Deduction or merely providing preliminary considerations for the Deduction. Determining the division is in itself unimportant. What matters is that we correctly understand Kant's objective and how he thinks he has reached his objective. It is beyond doubt that his objective lies in proving the objective reality and validity of the categories, and in terms of this objective, the Deduction can be divided into two parts. I will here concentrate first on the part where Kant proves the objective reality of the categories and then continue to the part where their objective validity is shown (which includes

⁵⁰⁰ B 150, translation modified.

⁵⁰¹ B 152.

the latter part of § 24). I shall refer to these parts by calling them the Reality-Part and the Validity-Part.

9.2. *Objective Reality*

As I said earlier, Longuenesse points out that even the beginning of the Deduction (§ 20) deals with both the synthetic unity of apperception and the sensible manifold. However, Kant says that in the Reality-Part he must abstract from the way in which the sensible manifold is given, and the reason why § 20 deals with a sensible manifold is simply because human cognition always requires a sensible manifold. So prior to the first application of the understanding a manifold must be given through sensibility, and as Henrich rightly points out, the result of § 20 contains a restriction. To put it in Henrich's words, Kant "established that intuitions are subject to the categories *insofar* as they, as intuitions, already possess unity (B 143)."⁵⁰² To paraphrase, Kant's conclusion in § 20 is that the manifold given in *one* intuition necessarily stands under the categories. Therefore, the conclusion is "valid only for those intuitions *which already contain unity*."⁵⁰³

Henrich's interpretation is compatible with the explanation I have given for Kant's use of the expressions 'objective validity' and 'objective reality'. To see how, let us take a look at how Henrich continues. According to Henrich, consciousness must be understood as an activity, and he draws the following conclusion:

Thus our consciousness can be found only together with a "passive" receptive faculty, which is distinct and in certain respects opposed to the spontaneity of consciousness; it can en-

⁵⁰² Henrich, "Proof-Structure", 645.

⁵⁰³ Henrich, "Proof-Structure", 645.

counter intuitions only as given “before all consciousness.” Kant reformulates the task of the transcendental deduction with reference to this very distinction: it must demonstrate that categories are capable of taking up something given into the unity of consciousness. “Appearances might very well be so constituted that the understanding should not find them to be in accordance with the conditions of its unity” (B 123). If that is possible, then it can also be asked whether such a disproportion between consciousness and givenness can be excluded for all or only part of the given appearances.⁵⁰⁴

This is precisely how I understand Kant, and what I have suggested in this study is that proving the objective reality of the categories amounts to what Tetens had called the realisation of basic concepts. In other words, it means proving that these concepts have real objects. On the other hand, in order to prove the objective *validity* of these concepts Kant would have to show that *all possible* appearances stand under the categories. In terms of the structure of the B Deduction this would be the opposite of how Allison sees the Deduction, because he thinks that the first part (culminating in § 20) is concerned with the objective validity and the second part with the objective reality of the categories.⁵⁰⁵

In my opinion then, Henrich understands correctly what needs to be proved in the B Deduction. However, after a promising start Henrich is forced to conclude, with so many other commentators, that Kant confused things. Henrich accuses Kant of being unable to see with sufficient clarity that sensibility is distinct from consciousness.⁵⁰⁶ Thus, Kant was, according to Henrich, “able to assert propositions which anticipate the result of the proof of the deduction and at the same time make the deduction dependent on the mere semantic analysis of the word “mine””⁵⁰⁷.

⁵⁰⁴ Henrich, “Proof-Structure”, 646–647.

⁵⁰⁵ Allison, *Idealism*, 134.

⁵⁰⁶ Henrich, “Proof-Structure”, 654.

⁵⁰⁷ Henrich, “Proof-Structure”, 655.

Henrich also concludes that there is a substantial difference between the proof of the first and the second editions, which Kant was unable to see.⁵⁰⁸

As I said in the Introduction, I think that this kind of self-complacency, although understandable, is misplaced in Kant scholarship. Instead of putting the blame on Kant one should try to see whether the text could be so interpreted that the apparent confusion vanishes. In Henrich's case, this can be easily achieved. All we need to do is to pay attention to the passive faculty distinct from consciousness. This faculty is inner sense and it is indeed passive. However, if my hypothesis is correct, then Kant thought that the mind is both in a passive and in an active relation to inner sense. When we add this hypothesis to Henrich's position that consciousness must be understood as an activity that "always presupposes that something is present in the first place which is to be made conscious", we get a two-stage theory of cognition where givenness presupposes a prior act of cognition. From my analysis of the B Deduction it can be seen that if we accept this hypothesis, then contrary to what Henrich says, the B Deduction turns out to be similar in structure to the A Deduction. Moreover, we can see that Kant did not rely on a mere semantic analysis of the word "mine". In my view then, the reason why Henrich thinks that Kant confuses things is that he has not understood correctly inner sense is for Kant.

In order to see how Kant proves the objective reality of the categories, we need to understand how the sensible given is given to us. Under my hypothesis, it is given through an act that does not involve the use of apperception. In fact, I think that when Kant wrote the Deduction it probably did not even cross his mind that the reader might interpret him otherwise. So how is it possible in Kant's theory that the sensible given is given independently of apperception? It is possible because synthesis in

⁵⁰⁸ Henrich, "Proof-Structure", 656.

space and time necessarily produces a unitary representation.⁵⁰⁹ Therefore, a representation given in space and time is a representation containing unity, and what Kant first proves in the Deduction is that the understanding can be applied to it. However, the question Kant is ultimately concerned with is whether the application is valid. In other words, the ultimate question is whether the object thought through the posterior act of cognition necessarily conforms to the objects given through the prior act of cognition. This interpretation of the aim of the Deduction is in conflict with Allison's view, so let us see how he defends his interpretation of what objective validity means.

Allison thinks that objective validity and objective reality are connected with different conceptions of an object.⁵¹⁰ In discussing this view, he gives a very clear-headed analysis of what a subjective unity of consciousness is as compared to an objective unity of consciousness. In his analysis Allison arrives at the same conclusion I made in section 5.5 concerning the subjective unity of consciousness. As Allison puts it, "if I had merely the disposition to associate and not also the capacity to think, I could not even become aware of the fact that I associate."⁵¹¹ However, Allison is unable to connect this view with § 19 where Kant explains what the objective unity of apperception is. He then concludes that

Kant conflates the contrast between the objective unity of self-consciousness that occurs in judgment and the subjective unity of consciousness produced by association with the quite different contrast between judgments which refer to objects in the "weighty" sense (judgments of experience) and those which refer to the state of the subject (judgments of percep-

⁵⁰⁹ Also Henrich ("Proof-Structure", 646) thinks that in the Deduction Kant relies on the fact that in the representations of space and time we have intuitions, which contain unity.

⁵¹⁰ Allison, *Idealism*, 135.

⁵¹¹ Allison, *Idealism*, 155.

tion). Incredibly enough, he does this in the very paragraph in the *Critique* in which he attempts to articulate his conception of judgment. Given this conception, and the contrast between an objective and a subjective unity that goes with it, Kant should have distinguished here between the mere association of the impression of weight with the impressions of body (a subjective unity) and the thought “If I support a body, I feel an impression of weight.” He should also have noted that this thought is as much a judgment possessing objective validity as its counterpart, “The body is heavy.” Both involve the relation of representations to an object. The difference between them is not relevant to the conception of judgment which Kant is here trying to explicate.⁵¹²

Again, I think that instead of accusing Kant of confusing things we should try to find a way to make Kant intelligible, and if we accept my hypothesis, we find that Allison has missed Kant’s point. The reason for this is that Allison has chosen the wrong path in detecting what the distinction between two kinds of objects is. Allison does indeed consider the possibility that this distinction could be explained (as I think it should) through what Kant says in the A edition in A108: “All representations, as representations, have their object, and can themselves be objects of other representations in turn.” He then notes that interpreted this way the distinction “corresponds to Kant’s own distinction between objects of outer and inner sense” but that it does not correspond to the distinction relevant in the B Deduction.⁵¹³ However, if we accept my interpretation according to which the objects of outer sense are represented in inner sense, we can make sense of what Kant means to say in § 19. It is perfectly consistent for Kant to claim that of the two thoughts considered in the above passage only the thought “It, the body, *is* heavy” is a judgement. Allison rightly claims⁵¹⁴ that the subjective unity of consciousness formed

⁵¹² Allison, *Idealism*, 158.

⁵¹³ Allison, *Idealism*, 136.

⁵¹⁴ Allison, *Idealism*, 154.

according to the laws of association does not as such represent an object, but he is unable to incorporate this into what Kant says in § 19. What Kant wants to say there is that a judgement is an act of representing an object. This same act, when applied to the sensible given, produces an object by determining inner sense, in which the subjective unity is represented. This posterior act of cognition is the first application of the understanding and through it arise empirical concepts that can be connected in judgements.

Under my hypothesis then, Kant does not confuse things in § 19 but Allison misinterprets his theory of the epigenesis of reason. Thus, in my view, Henrich is correct in saying that the Deduction “must demonstrate that categories are capable of taking up something given into the unity of consciousness”.⁵¹⁵ This means demonstrating the objective reality of the categories, and Kant is in a position to do this only by explaining how the understanding is capable of affecting inner sense, which he does by introducing the faculty of figurative imagination.

In reading that part of § 24 where Kant explains the role of figurative imagination, it is extremely important to understand how low the top-down part descends. In § 21 Kant said that he must abstract from the way the manifold for intuition is given and that he will attend to this in § 26. Thus, the figurative synthesis introduced in § 24 does not explain how the manifold is given in sensibility. As I explained in the previous chapter, the figurative synthesis belongs to the posterior act of cognition and the top-down part does not say anything about the way in which the manifold is given. Kant clearly says this. If we do not accept this fact, we are forced to conclude with Henrich that Kant was confused and did not understand that sensibility is distinct from consciousness. In that case his attempt to prove the objective validity of the categories failed miserably before he even got started. Further, we will have to conclude that the B Deduction is not related to the A

⁵¹⁵ Henrich, “Proof-Structure”, 654.

Deduction in the way Kant says it is. As we saw, this led Allison to conclude that even though Kant says that he will prove the objective validity of the categories after he has proven their objective reality, he did in fact prove it already in the beginning of the Deduction. Longuenesse tries to rescue Kant from this embarrassment by introducing the distinction between judgements of perception and judgements of experience, which Kant does not even make in the *Critique*, but as we saw at the beginning of the present chapter, this contradicts what Kant says elsewhere in the Deduction.⁵¹⁶

9.3. Objective Validity

In § 26 Kant presents the Validity-Part, or, viewed from another perspective, the bottom-up part of the Deduction. That it begins from beneath is easy to see, because it begins by considering what is empirical, namely the given appearance “which, if it is combined with consciousness, is called perception”, as Kant says in the A Deduction.⁵¹⁷ However, because of the different manner of presenting the Deduction, Kant does not here have to consider how the empirical matter is put together, and this makes the part much shorter than the one in the A Deduction.

Let us first take a look at what Kant says about the aim of the Validity-Part at the beginning of § 26. He says that the possibility of the categories as *a priori* cognitions of objects of an intuition *in general* was exhibited in §§ 20 and 21. We saw above that in § 24 he showed the objective reality of the categories (with respect to human intuition), and now, he says, he will explain “the

⁵¹⁶ One should also note that according to *Jäsche Logic* (Ak. 9:113) judgements of perception are really not possible.

⁵¹⁷ See A 120.

possibility of cognizing *a priori through categories* whatever objects *may come before our senses*".⁵¹⁸

So what can come before our senses? We should consider this question with respect to the form of sensibility. Only something in the form of space and time can come before our senses, and the synthesis of apprehension must thus always be in agreement with space and time. In order to understand Kant's argument in § 26 we need to understand what exactly Kant thought that these forms are. Perhaps the best way to understand this is to consider how empirical consciousness of appearances arises. At the end of the previous chapter, I mentioned that I think that the B Deduction can be best understood through Wolff's philosophy. In section 5.2, I explained how Wolff thought that time is required for consciousness of objects. According to Wolff, our concept of time arises when we cognize that composite things can come to be gradually and when we notice that our thoughts follow one another.⁵¹⁹ In Wolff's view then, the concept of time arises from representing something coming to be in space. The representation of space, on the other hand, arises from representing separate things as simultaneous.⁵²⁰ Space is thus the order of simultaneously existing composite things and it does not exist independently of the things that fill space.⁵²¹

For Kant, the story does not end here, because he thinks that space is the form of outer sense, and although Kant agrees with Wolff that it is ideal, he thinks that it is prior to the things that fill space. The important thing here is to understand *how* it is prior to the things that fill space. We need to understand what kind of space it is that awaits the impressions in our receptivity. According to my hypothesis, this form of outer sense is nothing more than the pure manifold in which we can sense impressions.

⁵¹⁸ B 159.

⁵¹⁹ Wolff, *Deutsche Metaphysik*, § 94.

⁵²⁰ Wolff, *Deutsche Metaphysik*, § 46.

⁵²¹ *Ibid.*

Indeed, this is not a mere hypothesis. Kant says very clearly in his reply to Eberhard that there are no innate representations.⁵²² In order to get a fuller grasp of how Kant thinks he can prove the objective validity of the categories, I will explain Kant's disagreement with Wolff in more detail before turning to secondary literature.

9.3.1 KANT'S DISAGREEMENT WITH WOLFF

In the B Deduction, Kant's argument for the objective validity of the categories rests on proving that the unity of representation in representing something in space and time is the very same unity required for representing a given manifold of intuition in general in an original consciousness, but applied to our sensible intuition. Thus, we will be able to understand Kant's argument only if we can understand his solution to the question of the unity of representation in sensible intuition.

What, then, is the question of the unity of representation in sensible intuition? As there are no innate representations, there is no unity in space as such. Although space itself is prior to the things that fill space, no *unity* is prior to the things that fill space. The prior act must, therefore, produce the unity of representation. What we have to find out is how Kant thinks that the mind can accomplish this. The clue to answering this question is that the sensing subject is necessarily one. If the impressions required for representing an appearance were dispersed among various sensing subjects, it would render appearances altogether impossible. It is important to note that this claim is not identical with the claim made in the Reality-Part that the transcendental *apperception* is necessarily one, nor does it amount to the claim that the soul is a simple substance. The latter of these claims is beyond our

⁵²² Ak. 8: 221.

knowledge while the former concerns only the intellectual synthesis of the posterior act of cognition. One consciousness, the original apperception, makes unity possible in the posterior act but not in the prior act to which we must turn our attention if we wish to understand what Kant wants to say in the Validity-Part.

Concerning the prior act, Wolff thought that the simplicity of the soul grounds the unity of the image produced by the soul. Kant cannot accept this, and he thinks that we must look behind the concepts of space and time in order to see the origin of their unity. Interestingly though, there is a common ground between Wolff and Kant even in their conception of the origin of the concepts of space and time, and we can learn much from comparing their views.

Kant's position is that an intuition necessarily contains a manifold. An empirical intuition depends on impressions, but those impressions themselves cannot enter consciousness, because the mind cannot grasp them as a manifold in one representation without a synthesis in the form of space. Consciousness of any kind requires both a manifold and unity.

There is nothing surprising here, since also Wolff thought that we can be conscious only of composite things.⁵²³ Consciousness thus always requires a manifold. Wolff contrasts the representable composite with the unrepresentable simple, but in Kant the contrast is with the manifold as such. This difference reflects their different views on the role of sense in cognition. For Wolff, the simple substances of which reality consists, lack spatial properties. Space is thus subjective for Wolff. An idea of a composite, extended object is a result of a confused perception of the non-sensible, simple things. In Kant's view, this is not so. Sense is not a confused mode of representation and space is a condition of composite things. It is not abstracted from the co-existence of things.

⁵²³ Wolff, *Deutsche Metaphysik*, § 82.

Kant thinks that a manifold is representable only by virtue of outer sense. As Kant says in his Introduction to the B-edition (B 1), the cognitive faculty can be awakened into exercise only through our senses. Outer sense is thus the source of an empirical manifold. The manifold of outer sense is twofold: there is both an empirical and a pure manifold. Kant of course thinks that it is the empirical manifold, i.e. impressions, that awaken the cognitive faculty into exercise as a result of outer affection. This empirical manifold does not, however, produce cognition without inner action, i.e. without synthesis. Synthesis, on the other hand, is always successive, so it takes place in time, which is the form of inner sense. Consequently, consciousness of any kind requires inner sense and inner affection. A mere manifold without unity cannot be consciously represented. This has been my leading thought in this monograph, and now my aim is to show how Kant's view on the interplay between outer and inner sense changes the way a Wolffian should think about cognition. This will, I hope, also cast some light on that leading thought.

I use the word 'interplay', because Kant's idea is that acquiring the concepts of space and time involves multiple syntheses affecting inner sense. The key to understanding the difference between Wolff and Kant is that in Kant's view, there is a difference between space and time as forms of our sensibility on the one hand, and as representations of space and time on the other. According to Kant, we cannot represent space or time without affecting inner sense. There are no innate representations, but the pure manifolds of space and time are prior to the appearances and prior to both inner and outer affection.

The crucial question is this: how can one represent space? The first step in answering this question is to consider what a representation of space is. According to Wolff, space is the order of simultaneously existing things.⁵²⁴ Does Kant agree with this?

⁵²⁴ Wolff, *Deutsche Metaphysik*, § 46.

The answer depends on whether by “space” we refer to the pure manifold of outer sense or to a representation of space. Wolff considers only the latter, but for Kant there is a crucial difference between the two. He thinks that space as a pure manifold is independent of time, but regarding the representations of space, Kant agrees with Wolff. Space is the order of simultaneously existing things. I will explain what this means.

In the awakening of our cognitive faculty, the first kind of representations of space is undoubtedly the particular space an appearance occupies. At the beginning of the First Analogy of experience, Kant writes:

All appearances are in time, in which, as substratum (as persistent form of inner intuition), both *simultaneity* as well as *succession* can alone be represented.⁵²⁵

In the Analogies, the subject-matter is experience, i.e. the posterior act of cognition, but the Analogies teach us a lot about the prior act as well, because also the prior act depends on an *a priori* synthesis. Although the Analogies are “principles of the determination of the existence of the appearances in time”,⁵²⁶ the appearances are in time even prior to any determination, and the relations of time are the same whether we are self-consciously aware of them or not. Consequently, Kant’s examination of the relations of time in experience will help us to understand his view on what time and space are. Kant discusses simultaneity and succession in the Second and Third Analogy, and they are the relations we need to study in order to understand Kant’s disagreement with Wolff.

We should begin with the Third Analogy and work our way back to the conditions of representing spatially extended

⁵²⁵ B 224.

⁵²⁶ A 215 / B 262.

appearances. In the Third Analogy Kant examines simultaneity. He writes:

Things are *simultaneous* if in empirical intuition the perception of one can follow the perception of the other *reciprocally* (which in the temporal sequence of appearances, as has been shown in the case of the second principle, cannot happen).⁵²⁷

Kant agrees with Wolff that represented space is the order of simultaneously existing things. In the Third Analogy Kant explains that in experience, the possibility of representing simultaneously existing things requires “a concept of the understanding of the reciprocal sequence of the determinations of these things simultaneously existing externally to each other”.⁵²⁸ An objective representation of simultaneous existence of things external to each other thus depends on succession. The Second Analogy, on the other hand, tells us that an objective representation of succession requires the concept of causality. Since we cannot perceive time itself, this concept gives us the conscious representation of succession. Kant’s example is the perception of a ship driven downstream.⁵²⁹ In this event, the concept of causality makes the order of perceptions in apprehension necessary.

On first sight, it might appear that this is all Kant has to say about simultaneity and succession. That is not the case, however. One should remember that in each class of the categories, the third category arises from the combination of the first two, and so the category of community arises from the combination of those of causality and dependence on the one hand and of inherence and subsistence on the other. Therefore, for the representation of simultaneity of things existing externally to each other, we need representations of succession *and* persistence. In order to

⁵²⁷ B 256f.

⁵²⁸ B 257.

⁵²⁹ A 192 / B 237.

understand how persistence is related to simultaneity and succession, we need to turn our attention to the First Analogy.

The First Analogy is about representing time. In it Kant explains how we can be conscious of time, and this can help us to understand Kant's disagreement with Wolff. Kant and Wolff agree that we cannot be conscious of time prior to our consciousness of succession and simultaneity. Yet Kant thinks that simultaneity and succession can only be represented *in time*. The underlying idea of the First Analogy is that the time in which simultaneity and succession can be represented must be represented in appearances. In other words, community presupposes both causation and substance. From this we can see Kant's disagreement with Wolff. Kant agrees with Wolff that we cannot be conscious of simple things. If, then, time itself is represented in appearances, it must be represented in a manifold. Now, both Kant and Wolff think that apprehension is always successive, so Kant disagrees with Wolff only on this: time, as the form of inner sense, is the condition of all experience. The following comment from the Second Analogy presents one way to express this disagreement:

Understanding belongs to all experience and its possibility, and the first thing that it does for this is not to make the representation of the objects distinct, but rather to make the representation of an object possible at all.⁵³⁰

This quote is from the Second Analogy, and there Kant continues by saying that the understanding makes the representation of an object possible through conferring temporal order on the appearances. However, Kant thinks that the understanding has an even more fundamental task in representing time itself in substance, because he thinks that without that which persists there is

⁵³⁰ A 199 / B 244.

no temporal relation.⁵³¹ Through representing the form of inner sense – time – the understanding is first in a position to represent temporal relations.

Therefore, if a Wolffian accepts what Kant has to say in the *Transcendental Aesthetic*, he or she should make the following logical conclusion: the relations of time and the concept of time presuppose a representation of spatial extension. In other words, when our cognitive faculty is awakened into exercise, the ability to represent temporal relations presupposes a representation of an appearance with spatial extension. Let me explain why. The consciousness of succession presupposes a representation of persistence – a representation of time in which the succession takes place. A representation of that time will necessarily contain a manifold, because a simple thing cannot persist (a simple thing cannot be in time). Wolff would agree with Kant that in order for something to persist in time, it will have to come to be gradually so that what is present at a given moment is distinguishable from what was earlier.⁵³²

Two things require attention here. First, since the appearance that represents time through persistence, is a composite thing, it is a spatial representation. Second, since it contains a manifold, the representation requires successive apprehension. In other words, the representation of time is a spatial representation apprehended in time. This might at first appear contrary to reason, but it is not. Remember that we started our analysis from consciousness of simultaneously existing things in space (community) and proceeded to consciousness of succession (causality). I noted that the category of community presupposes not only the category of causality and dependence but the category of inherence and subsistence as well. Consciousness of the existence of several simultaneous things thus presupposes consciousness of

⁵³¹ A 183 / B 227.

⁵³² See Wolff, *Deutsche Metaphysik*, § 89, § 90 and § 101.

persisting *individual* things. Since representable things necessarily have a simultaneously existing manifold, the persisting thing must be represented in space.⁵³³ On the other hand, since apprehension is always successive, consciousness of the persisting thing requires succession.

Now, Wolffians thought that inner sense is just another word for apperception, but Kant thought that inner sense is a genuine sense. It is a capacity for inner affection. Its form is time, as Kant declared in the Transcendental Aesthetic. As we saw from the above passage, Kant also thought that the posterior act of cognition does not make the representation of the objects distinct. It makes the representation of an object possible. It is a mental act, so it affects the mind through inner sense. Since time is the form of inner sense, the posterior act consists in a successive synthesis, although the most fundamental product of the act – an appearance representing time itself through persistence – contains simultaneously existing parts. Further, as Kant thinks that the appearances themselves do not depend on the functions of the understanding, the same must be true of the prior act as well. The prior act makes the appearances possible. An appearance necessarily contains simultaneously existing parts, so the prior act must be successive and it must affect inner sense. Inner sense is therefore affected by both the prior and the posterior act. Both acts are temporal. However, as can be easily seen, the succession required for the prior act cannot be conscious in any way. The criterion for the most elementary kind of consciousness is empirical reproducibility, and the succession required for the prior act is a requirement for empirical reproducibility. The succession requires reproduction, to be sure, but that reproduction is transcendental, not empirical.

⁵³³ This requires the transcendental schema of the corresponding mathematical category of unity, in accordance with which the productive imagination produces a representation (a shape) through composition.

We may now sum up the analysis of simultaneity and succession. Consciousness of the simultaneity of things external to each other requires succession in the apprehension of those things. The *a priori* rule represented in the category of community makes this consciousness possible. Consciousness of succession, on the other hand, requires a persisting thing whose parts exist simultaneously, and the rule represented in the category of causality and dependence makes this consciousness possible. The simultaneity of the parts of a thing differs from the simultaneity of things external to each other, because they are made possible by different categories (or different transcendental schemata, to be more precise). The category of community arises from the combination of the first two categories. The simultaneity of the parts of a thing is the ground of both conscious succession and conscious simultaneity, but also it requires succession. It is made possible by the rule represented in the category of inherence and subsistence, and it requires a successive synthesis (and transcendental reproduction). Ultimately, however, we cannot be conscious of the time in which this succession takes place, except in the product of the act: in persistence. Hence, one could say that the simultaneity of the parts of a thing is a representation of the succession in the transcendental synthesis that makes possible conscious representations of the two modes of time: succession and simultaneity. One should note, however, that here the expression 'representation of' is not used in the meaning in which Kant uses it in the *Analytic*. In cognition, the mind represents an object by acting on a representation. The representation is then a representation of an object – either an undetermined or a determined object – produced by the mind. However, the impressions can be said to be representations of things in themselves, and in that case the direction of the relation between the representation and the represented is reversed. In cognition, the representation makes the represented possible, in affection the represented makes the representation possible. Now, simultaneity is represented through af-

fection, and succession makes it possible. Impressions and simultaneity are the two cases where noumena can be said to be represented through a sensible representation. The self is a noumenon, and the simultaneity in an appearance represents through inner affection the acting self. Thus, although space is the order of simultaneously existing things, simultaneity requires not only a pure manifold of space but a pure manifold of time as well, and the appearances are represented in inner sense by means of a successive act.

We should carefully note that although Kant's discussion in the Analogies concerns the posterior act of cognition (recognition), the same *a priori* rules of the transcendental schemata that make recognition possible are in work in the prior act as well. The difference is that in the prior act they make empirical reproduction, not recognition, of appearances possible. Spatially extended appearances, their changes and their interaction must be reproducible if we are to become conscious of them, so the same analysis applies also to the prior act. Although the conclusion that a representation of simultaneity requires succession may seem odd at first sight, it is a direct consequence of the Transcendental Aesthetic. One could compare this view with the distinction between cardinal and ordinal numbers that Georg Cantor introduced a century later:

We will call by the name "power" or "cardinal number" of M the general concept which, by means of our active faculty of thought, arises from the aggregate M when we make abstraction of the nature of its various elements *m* and of the order in which they are given.⁵³⁴

What is of interest to us in this connection is that Cantor means by an aggregate M any collection into a whole (a unity

⁵³⁴ Cantor, *Contributions*, 86.

containing a manifold), and he thinks that we arrive at its cardinal number (quantity) by abstracting from the quality and order (succession) of its elements. Although the cardinal number is a concept, it is a representation of the quantity of the elements m as simultaneous. In the Schematism Kant says that the pure schema of magnitude "as a concept of the understanding, is *number*, which is a representation that summarizes the successive addition of one (homogeneous) unit to another."⁵³⁵ All intuitions, on the other hand, are extensive magnitudes, and the transcendental schema, which *as a concept of the understanding* represents number (unity of the synthesis of the manifold of a homogeneous intuition *in general*), is needed for representing the synthetic unity of the manifold of *a sensible intuition*. Thus, the extensive magnitude of the simultaneous manifold of an appearance in space is represented by means of the same *a priori* rule, which generally represented yields the concept of number.⁵³⁶ Like Cantor, Kant thinks that this representation of magnitude presupposes a succession of elements and an abstraction from the quality of those elements.⁵³⁷ A representation of an extensive magnitude in space requires a succession of impressions, but that representation does not contain any impressions and it does not depend on the order their succession. And since a representation of an extensive magnitude in space is the most fundamental requirement of the empirical reproducibility of appearances, it follows that the impressions cannot be empirically reproducible. Empirical reproduction requires simultaneity, and simultaneity requires a succession of impressions.

⁵³⁵ A 142 / B 182.

⁵³⁶ The spatial extension required for the representation of something persisting in space of course depends on the *a priori* rules represented in the mathematical categories of quantity.

⁵³⁷ I do not, however, want to stress the connection between Kant and Cantor too much. There may be notable differences as well, but I think that the similarities deserve a closer look.

We are now in a position to understand how Kant thought that Wolff's account of time and space is incorrect. Wolff's error lies solely in the view that sensibility represents simple substances confusedly. Kant corrects this mistake in the Transcendental Aesthetic by claiming that space is the form of outer sense and that time is the form of inner sense. These forms are prior to the representations of sensibility. This is the crucial change Kant wants to make to Wolff's account.

Although these forms are prior to the representations of sensibility, they become representable only through a synthesis that gives unity to the *a priori* manifold. Time can be represented only by means of the manifold of *outer* sense. A unity of space (simultaneity of the parts of an appearance) is thus the first representable unity, and it is represented by affecting inner sense through a successive *a priori* synthesis. This synthesis, however, is occasioned by outer affection, so empirical cognition of any kind – self-conscious or not – necessarily involves both outer and inner affection.

In this way, Kant has made the necessary changes to Wolff's account of sensibility. Like Wolff, he thinks that imagination belongs to sensibility. Like Wolff, he thinks that the imagination includes a productive faculty. However, Kant points out that the empirical use of the productive faculty grounds perception and is itself grounded in a transcendental use, which is reproductive. This conclusion follows logically from the change Kant has made to the Wolffian system in the Transcendental Aesthetic. Let us see how.

According to Wolff, the prior act of cognition is a means for distinguishing objects. Kant's view is that sensible representations cannot be simple, so an appearance is necessarily a composite object. A composite object needs to have simultaneously existing parts, so distinguishing objects is impossible without distinguishing a region of space, i.e. the shape of an object. The representation of shape, in turn, necessarily involves succession,

because it cannot arise at a single moment. This line of thought is thoroughly Wolffian. In order to understand what new Kant has to say about the succession, let us look at what he says about succession, synthesis and distinguishing in the Second Analogy:

In the synthesis of the appearances the manifold representations always follow one another. Now by this means no object at all is represented; since through this sequence, which is common to all apprehensions, nothing is distinguished from anything else.⁵³⁸

The sequence is common to all apprehensions, so Kant's point is not limited to causality. His point is that through the succession itself nothing is distinguished from anything else. Distinguishing requires an *a priori* rule, by means of which we anticipate in the "sequence a relation to the preceding state".⁵³⁹ Depending on the rule, we get as a result of apprehension persistence, causality or community of substances. In perception, these rules are self-consciously represented through original apperception. In the prior act, on the other hand, the same rules produce appearances without apperception. In both cases the rule provides a relation to the preceding state in the succession. The synthesis therefore requires reproduction but this reproduction cannot be empirical. It must be transcendental. By means of transcendental reproduction, therefore, successive synthesis can distinguish a particular space, which is a requirement for distinguishing objects, and in this way the productive faculty is ultimately grounded on transcendental reproduction.⁵⁴⁰

⁵³⁸ A 198 / B 243.

⁵³⁹ Ibid.

⁵⁴⁰ Kant thinks that the empirical use of the productive imagination presupposes a pure but sensible use, which, in turn, presupposes a transcendental use of the same faculty. See Ak. 23:18–20.

This is where Kant's account breaks off from Wolff's philosophy. Wolff based his dogmatic philosophy on the principle of sufficient reason, and he argued that composite things could not exist without simple things as their ground.⁵⁴¹ In Kant's view Wolff's reasoning is not valid, since we represent mere appearances, which are made possible through transcendental synthesis affecting inner sense. Sensibility is not a confused mode of representing simple things. Although the prior act depends on an *a priori* synthesis, it depends just as much on affection through outer and inner sense. Sensibility thus consists in sense, which provides an *a priori* manifold, and imagination, which provides its synthesis, and composite things depend on the pure forms of time and space. It is true that the appearances are prior to our *conscious* representations of time and space, but the pure manifolds must be prior to the appearances.

9.3.2. KANT'S DISAGREEMENT WITH LOCKE

In the preceding section, my aim was to show how Kant disagreed with Wolff on the question of the unity of sensible representations. Kant thought that a sensible representation contains a manifold in one representation, and the key question of the B Deduction is how sensibility can produce a unity out of a manifold. Kant objects to Wolff's claim that sensibility represents simple substances confusedly, and he argues that the Wolffians need to change their view on the nature of the prior act of cognition. Before considering the consequences of this change, we should consider the alternative to Wolff's account of sensibility, namely the view that the mind can represent things in themselves through simple ideas.

⁵⁴¹ Wolff, *Deutsche Metaphysik*, § 76.

This rivalling view was endorsed by Locke. Locke thought that the mind can represent the properties of extra-mental things through simple ideas. He sees the extra-mental world as consisting of atoms that have certain properties. They are extended and solid, they have a particular shape and they are in motion or rest. These atoms affect the senses and we are acquainted with them through simple ideas that sensibility offers us. The mind then operates on those simple ideas, and Locke thinks that while the secondary qualities (e.g. colour and taste) that we perceive in bodies are mind-dependent, they are based on primary qualities of bodies. The ideas of primary qualities resemble the qualities of extra-mental things.⁵⁴²

The disagreement between Wolff and Locke can be put as follows: as Wolff thinks that sensibility cannot offer simple representations, he thinks that all sensible properties are secondary qualities. The prior act of cognition produces sensible ideas but those ideas necessarily contain a manifold and they cannot resemble things in themselves. This makes even spatial properties mind-dependent. We saw above how Kant thought that Wolff's account of sensibility is in error. Kant holds that space must be prior to the things that fill space but unlike Locke, he does not think that primary qualities resemble things in themselves.

On the face of it, rejecting Wolff's view on sensibility seems to leave no option than to resort to Locke's view which, however, had led to skepticism. Still, Kant thought that there is a middle way, but even the commentators who are sympathetic to Kant see him as contradicting himself in trying to find that way. I have argued that this is because of a widespread misconception among scholars about Kant's account of perceptual awareness. That misconception concerns the role of inner sense in Kant's theory and it manifests itself in the view that for Kant perceptual

⁵⁴² Locke, *Essay*, Book II.

awareness has intentional content. I hope I can now explain this more clearly by considering Kant's disagreement with Locke.

The objection Kant raises against Locke is that mere affection cannot produce unity of representation. For Locke, the simple ideas are passively received unities out of which the understanding constructs complex unities. Kant, by contrast, agrees with Wolff that sensibility cannot represent unities without acting.

As we have learned from Wolff, the fundamental reason why the mind needs sensible unities is that sensible unity makes distinguishing an object of sense possible. Without sensible unities, the understanding could not apply its operations to sensible representations. Hoke Robinson has noted that one of the reasons why Kant rejects the Lockean concept of the sensory given is that in order to be able to combine the sense-data the mind "must be able to determine similarity (perhaps even identity) and difference between them."⁵⁴³ I agree. If sense-data unity is found and not made, we are, as Robinson puts it, "faced simply with a Mystery, a non-explanation."⁵⁴⁴

Robinson argues that Kant in fact rejects Locke's whole view of human cognition. In particular, Robinson challenges the interpretation that for Kant the necessary temporal order of outer-sense representations is based on an immediately introspected temporal order of subjective representations in inner sense.⁵⁴⁵ He instead proposes an interpretation of the distinction between inner and outer sense by using terms borrowed from Brentano and Husserl.

Robinson's interpretation bears similarities to my own. I agree with him on the point that "Kant's own argument for the priority of outer sense turns on the position that the determination of time in inner sense depends on, and thus presupposes, outer

⁵⁴³ Robinson, "The Priority of Inner Sense", 173.

⁵⁴⁴ Robinson, "The Priority of Inner Sense", 173.

⁵⁴⁵ Robinson, "The Priority of Inner Sense".

sense.”⁵⁴⁶ By distinguishing the process of consciousness, noesis, from the intentional object of consciousness Robinson draws a distinction between inner sense as noesis and inner sense composed of intentional *inner* objects. He argues that if the temporal order of inner-sense objects is to be introspectable, the mind has to be able to differentiate those objects from one another. On Robinson’s interpretation, Kant thought that the “determination of temporal order requires, in addition to causality (and perhaps reciprocity), also substance.”⁵⁴⁷ Outer sense is thus prior to intentional inner sense. By intentional inner sense Robinson means inner sense as it appears, i.e., consciousness of the sequence of thoughts. As we have seen, this is compatible with how I read the Analogies: consciousness of simultaneity is required for consciousness of succession.

Robinson argues further that differentiation must occur in noetic inner sense as well. We cannot observe this differentiation, however. It falls behind the veil of appearance, so we cannot observe the imagination at work in synthesizing the sensory manifold.⁵⁴⁸

These claims are well supported by what Kant says and I agree on them. However, I see two serious problems. According to Robinson’s interpretation the categories are involved in producing the appearances.⁵⁴⁹ This contradicts Kant’s claim that appearances would offer objects to our intuition even if they were not in accord with the conditions of the unity of the understanding.⁵⁵⁰ Robinson also thinks that for Kant, the hidden act of the imagination produces a *representation* of an object of outer sense, which representation then can be the basis of intentional inner-

⁵⁴⁶ Robinson, “The Priority of Inner Sense”, 174.

⁵⁴⁷ Robinson, “The Priority of Inner Sense”, 176–7.

⁵⁴⁸ Robinson, “The Priority of Inner Sense”, 177–8.

⁵⁴⁹ Robinson, “The Priority of Inner Sense”, 177–8.

⁵⁵⁰ A 90–1 / B 123.

sense objects.⁵⁵¹ This interpretation is not supported by Kant's explication of the concept of an object in general in the A Deduction.⁵⁵²

I have argued for an alternative interpretation: what the imagination produces out of the sensible manifold is not a *representation* of an object but the (undetermined) object itself. On this interpretation, the categories are not involved in producing that object. Although I think Robinson is right in making a distinction between the hidden temporal succession of inner sense and the accessible and observable temporal succession that presupposes outer objects, I do not think we should use terminology borrowed from Brentano and Husserl in making that distinction. Robinson's reason for doing so is that Kant's usage of the terms 'apprehension' and appearance' is "notoriously inconsistent",⁵⁵³ but I don't think it is inconsistent at all.

Remember that when the imagination applies its hidden act on a passively received manifold of outer sense, it produces an appearance. The appearance is not (by itself, without an act of the understanding) a representation of an object. Contrary to how Robinson thinks, outer sense cannot be characterized as a "system of intentional objects projected into a single spatio-temporal matrix."⁵⁵⁴ Outer sense is indeed prior to inner sense but appearances, as I have explained, are not modifications of outer sense but of inner sense. Let us consider how we could describe Kant's criticism against Locke in terms of intentionality.

Robinson ascribes to Kant the view that Locke "failed to see that without the understanding's application of the categories to sensation, there can be no relation to an object."⁵⁵⁵ I have no quarrel with this. The understanding does indeed produce the

⁵⁵¹ Robinson, "The Priority of Inner Sense", 178.

⁵⁵² A 108–109.

⁵⁵³ Robinson, "The Priority of Inner Sense", 170.

⁵⁵⁴ Robinson, "The Priority of Inner Sense", 171.

⁵⁵⁵ Robinson, "The Priority of Inner Sense", 172.

relation to an object. It does not, however, produce all *unity*, and this is where Robinson gets things wrong.

“Unity”, Robinson says, “is another concept about which Kant is less than crystal clear.”⁵⁵⁶ He thinks that the expression “*Das Mannigfaltige in einer Anschauung Gegebene*” (used in § 20) is less misleading than the expression “*das Mannigfaltige in einer gegebenen Anschauung*”, because on his interpretation, Kant thinks that the understanding produces all unity, and the latter expression suggests that the manifold is given in an intuition which already has unity.⁵⁵⁷ Robinson argues that there cannot be intuition without unity and he thus rejects Henrich’s claim that the conclusion in § 20 is valid only for those intuitions which already contain unity.⁵⁵⁸ Instead, he thinks that § 20 should be interpreted as saying that the mere manifold – a *Protoanschauung* – stands under the unity of apperception.⁵⁵⁹

I understand his reasons, but I think we can do better. The inconsistencies and obscurities vanish if we interpret Kant in the way I have proposed. As I explained in chapter 7, in § 20 Kant is concerned with *thinking*. As Robinson correctly points out, Kant thinks that without the understanding’s application of the categories, there can be no relation to an object. An object, Kant has told us, is that in the concept of which the manifold of given intuition is united.⁵⁶⁰ *Cognitions*, he says, consist in the determinate relation of given representations to an object.⁵⁶¹ But mere thinking is not cognition. The conclusion in § 20 is not enough to establish that the intellectual act of the understanding is capable of producing a determinate relation of a given sensible representation to an object. As Kant says in § 24, the categories are mere forms of

⁵⁵⁶ Robinson, “The Priority of Inner Sense”, 171, footnote 30.

⁵⁵⁷ Robinson, “Anschauung und Mannigfaltiges”, 145.

⁵⁵⁸ Robinson, “Anschauung und Mannigfaltiges”, 144.

⁵⁵⁹ Robinson, “Anschauung und Mannigfaltiges”, 146.

⁵⁶⁰ B 137.

⁵⁶¹ B 137.

thought through which no determinate object is yet cognized.⁵⁶² Thus, the unity required for a relation to an object is a unity that is “added to the intuition through the understanding by means of the category”,⁵⁶³ and only the posterior act of cognition is characterized by intentionality.

What does this mean with respect to the structure of the Deduction? The application of the categories to objects of the senses in general is discussed in § 24. The objective reality of the categories is proved by showing that the understanding can determine *inner sense*. Inner sense is the capacity of the mind to represent unities, and since Kant has shown in § 20 that a given intuition that possesses unity necessarily stands under the categories, he can conclude that all those sensible unities we can be conscious of, stand under the categories. The understanding is thus a capacity for cognition, because it can, by means of the categories, add the unity of the understanding to sensible unities and thereby give the latter a relation to an object.

When the understanding gives the sensible unities the relation to an object, it uses them as representations representing an object of experience. But as Kant says in A 108, representations can be objects of other representations in turn, and those sensible unities are indeed objects of other representations. They are undetermined objects – appearances. The understanding produces the objects of experience by means of the transcendental function of the imagination. As Kant says in A 124, without that function sensibility would “to be sure yield appearances but no objects of an empirical cognition, hence there would be no experience.”

Robinson is right in claiming that this act of imagination is hidden from consciousness and he is also right in claiming that it produces a representation of an object of outer sense.⁵⁶⁴ But

⁵⁶² B 150.

⁵⁶³ B 144.

⁵⁶⁴ Robinson is also right in claiming that this object of outer sense is the basis of inner-sense objects. How the process of producing inner-sense

claiming that it produces appearances not only runs against common sense but also contradicts what Kant says. Producing the representation of an object of outer sense is an act of apprehension. It requires imagination because imagination “is the faculty for representing an object even *without its presence* in intuition”.⁵⁶⁵ An object of experience is not present in intuition. Imagination does not, however, produce the *appearance itself* that is used for representing an object of experience. Rather, the appearance becomes a *representation* of an object of experience through the function of the transcendental imagination (through the figurative synthesis).

The appearance itself is thus produced prior to the figurative synthesis and prior to apprehension. But on the other hand, imagination itself belongs to sensibility and it is true that Kant thinks that the appearance could not be produced without imagination, although they are produced independently of the understanding. Appearances are sensible unities in inner sense, and since the form of inner sense is time, a sensible unity is possible by means of simultaneity produced by succession. That succession falls behind the veil of appearance, because only unities can be given to our understanding, and a sensible unity is a product of inner affection, which is successive. Neither the act of imagination affecting inner sense nor the manifold it uses is available for introspection. Even the pure manifold of outer sense, and thus outer sense itself, remains hidden from us. This conclusion may seem strange but it is perfectly understandable. Space is the form of outer sense, and we know the self only as it appears. Only shapes (unities) can be given to the understanding, not space (the manifold) itself. The true nature of space – e.g., if it’s Euclidean or not – we have to infer from the objects of outer sense (from the space we know), and that, it would seem, is always open to er-

objects works I have explained in the discussion on the Analogies of Experience.

⁵⁶⁵ B 151.

ror.⁵⁶⁶ Indeed, even the form of inner sense is accessible to us only as it appears. As Kant says, we represent the temporal sequence through a line and “infer from the properties of this line to all the properties of time”.⁵⁶⁷

Kant therefore agrees with Locke that the unities given to the understanding through sensibility are passively received, but Locke was wrong in assuming that they are simple unities. And because they are not simple, the mind must itself give them their unity. The unities contain a manifold and they are possible only through an inner act affecting our sensibility. But the mind must, of course, have the manifold independently of that act, and that manifold serves as the *representation of which an appearance is the object*. That manifold consists of both a pure and an empirical element, and the latter is received through outer affection. The operations of distinguishing and comparing presuppose unity, so the mere manifold produced by outer affection does not allow of those operations, and since the empirical manifold itself cannot be given to the understanding, we cannot have empirical cognition of things in themselves. Thus, in regard to the latter, all sensible properties are secondary qualities. On the other hand, since the appearances are real objects in space and time given independently of the understanding, we can draw a distinction between primary and secondary qualities. Some sensible properties belong to physical things; others do not.

9.3.3. FROM IMAGES TO PERCEPTION

The conclusion that composite things depend on the pure forms of our sensibility has an important consequence. In Wolff,

⁵⁶⁶ This is a tricky issue, because he nevertheless thinks that geometry is *a priori*.

⁵⁶⁷ A 33 / B 50.

the prior cognitive act produces a mental image, which is a representation of a composite in simple.⁵⁶⁸ For Wolff the soul is a simple substance but Kant thought that we are conscious of the self only as appearance. As compared to Wolff, this puts Kant in a completely different situation, because it compels him to take a new perspective on what images are. According to Wolff, the simple soul represents simple substances confusedly through a composite image. For Kant, on the other hand, neither the soul nor a simple substance outside it can be an object of experience, so for him Wolff's definition of an image is useless.

If an image is a representation of a composite in simple, that representation has both a manifold and unity. According to Kant, outer affection provides us with impressions ordered in space, and through it the mind has a manifold but not a unity of representation. The impressions themselves cannot be conscious, because they are not composite representations. Sense cannot put them together, and they lack reproducibility. This is obvious, because (as Wolff would agree) a composite representation requires succession, and outer affection is prior to inner affection. Since time is the form of inner sense, the succession required for a composite representation cannot precede the reception of impressions. Hence, the impressions themselves cannot be images. Now we must investigate how Kant thinks that the prior act can produce images out of impressions and how the posterior act can produce perception out of mere images.

The transcendental use of outer sense thus provides a pure manifold in which a unity *can* be represented through the transcendental use of imagination. If a Wolffian reader has accepted Kant's argument in the *Transcendental Aesthetic*, he or she should accept this conclusion. Apart from the claim that time and space are forms of intuition, Kant's reasoning fits the Wolffian framework perfectly, and given the interplay between time and

⁵⁶⁸ Wolff, *Philosophia rationalis*, § 87.

space in Wolff's account of our consciousness of objects, a Wolffian should admit that the act of producing the representation of a composite object depends on the pure manifold of time, for simultaneity can only be represented through successive synthesis. A Wolffian reader should thus have no trouble accepting this crucial claim from the Subjective Deduction:

Every intuition contains a manifold in itself, which however would not be represented as such if the mind did not distinguish the time in the succession of impressions on one another; for *as contained in one moment* no representation can ever be anything other than absolute unity. Now in order for *unity* of intuition to come from this manifold (as, say, in the representation of space), it is necessary first to run through and then take together this manifoldness, which action I call the *synthesis of apprehension*, since it is aimed directly at the intuition, which to be sure provides a manifold but can never effect this as such, and indeed as contained *in one representation*, without the occurrence of such a synthesis.⁵⁶⁹

Wolff would agree that the product of the prior act of cognition is necessarily a unity containing a manifold. On the other hand, Wolff thought that a conscious representation of an object (the posterior act of cognition) would be impossible if the mind did not distinguish (obscurely) the time in the succession of the material elements of the thought.⁵⁷⁰ There is, therefore, a clear connection between Wolff's philosophy and Kant's claim in the above passage from the Subjective Deduction: both Wolff and Kant think that in the posterior act the mind must distinguish the time in the succession of the material elements. In the Reality-Part (in § 24) Kant explained that even a pure conscious representation, e.g. thinking of a line in thought, is a successive determination of inner sense. It depends on distinguishing the time in this

⁵⁶⁹ A 99.

⁵⁷⁰ See Wolff, *Deutsche Metaphysik*, § 735.

succession. However, if the pure manifolds of space and time are ideal and *prior* to the things in space and time, as Kant claims in the Transcendental Aesthetic, the Wolffian reader should conclude with Kant that even the prior act requires a pure synthesis (in time) and that without a synthesis of a pure manifold “we could have *a priori* neither the representations of space nor of time”.⁵⁷¹ Wolff’s analysis of empirical apperception must therefore be taken further, and when we do this, the analysis reveals a connection between the *a priori* syntheses of the prior and the posterior acts of cognition.

Based on the Subjective Deduction we know that there is a pure synthesis, by virtue of which we have the representations of space and time. In the Subjective Deduction Kant examined the nature of this pure synthesis, but now we need to concentrate on the *unity* of the representations of space and time. Let us first take a look at how the Subjective Deduction is related to the beginning of the B Deduction.

Since synthesis is an *act*, a unity is always represented in inner sense. Indeed, just before the above passage from the Subjective Deduction, Kant says that the appearances are modifications of the mind and belong to inner sense. The product of the prior act of cognition therefore is a modification of the mind but it is *not* an idea of an object. It *is* the object represented in inner sense. This object (an appearance) is represented in space and time, and it is, as Kant says, independent of the functions of the understanding. Nevertheless, it depends on distinguishing the time in the succession of impressions on one another. Time is therefore a condition of both the prior and the posterior act, and a represented unity is always subjected to the formal condition of inner sense.

In Wolff’s philosophy, the image produced by the prior act of cognition is called an idea, when it is considered objective-

⁵⁷¹ A 99.

ly. An idea is an image of a singular thing. For Kant, neither the image nor the appearance is an idea. The appearance is an object, not an idea of an object. It does not have intentional content. Nevertheless, Kant does think that the prior act produces an image. In order to understand how Kant thinks that the prior act produces an image, we must see what Kant thinks images are.

In the A Deduction Kant says that in order to bring the manifold of intuition into an image, it must “antecedently take up the impressions into its activity”.⁵⁷² In the Schematism, on the other hand, he explains that placing five points in a row is an image of the number five.⁵⁷³ An image can thus be either pure or empirical. I have argued that an appearance is an *a priori* representation, so the prior act produces not only appearances but empirical images, which are made possible through producing appearances. Similarly, the posterior act produces empirical apperception (perception), which is made possible through the intellectual synthesis. Nevertheless, the act of representing an object – either an undetermined or a determined object – is a necessary requirement of having an empirically reproducible or recognizable representation, i.e. an empirical image or perception. In other words, although the impressions received through outer sense awaken the cognitive capacity into play, an *a priori* act is needed for representing an empirical image.

This transcendental use of productive imagination gives images their necessary unity. Sense cannot put the impressions together and neither can empirical imagination. Even subjective representations (sensations) can be empirically reproducible only by means of this *a priori* act. Thus, in order to be able to associate the colour red with heavy cinnabar, the subject needs the rule represented in the category of inherence and subsistence. The

⁵⁷² A 120.

⁵⁷³ A 140 / B 179.

colour could not be empirically reproduced if it were not represented as inhering in something.

Now, the posterior act necessarily includes an act of producing an image, but in addition to this, it also distinguishes the self from the object represented in the image. The prior act, on the other hand, merely distinguishes an object.⁵⁷⁴ It produces a mere image, and although the image is made possible by an appearance, the latter is nothing outside the power of representation, and the image cannot be considered as an idea. In the beginning of the B Deduction Kant has analysed the purely intellectual act by means of which the subject can distinguish itself from the object it thinks. However, the prior act must also include an act through which the object is represented, and in order to understand why he thinks that everything that can come before our senses stands under the categories, we need to understand how mere images can become perception.

In the Schematism Kant says that “the *image* is a product of the empirical faculty of productive imagination”⁵⁷⁵ On the other hand, Kant thinks that the empirical use of productive imagination is grounded in a transcendental use of the same faculty.⁵⁷⁶ Further, a schema is a “representation of a general procedure of the imagination for providing a concept with its image”,⁵⁷⁷ and a transcendental schema is a representation of that transcendental procedure in which the empirical use of productive imagination is grounded. Let us take a look at what Kant says about the schema of a category:

The schema of a pure concept of the understanding, on the contrary, is something that can never be brought to an image at all, but is rather only the pure synthesis, in accord with a

⁵⁷⁴ This is the Wolffian view on the role of the two acts.

⁵⁷⁵ A 141 / B 181.

⁵⁷⁶ Ak. 23:18–20.

⁵⁷⁷ A 140 / B 179–180.

rule of unity according to concepts in general, which the category expresses, and is a transcendental product of the imagination, which concerns the determination of the inner sense in general, in accordance with conditions of its form (time) in regard to all representations, insofar as these are to be connected together *a priori* in one concept in accord with the unity of apperception.⁵⁷⁸

As Kant says in this passage, a transcendental schema is a product of the imagination, and it makes possible the application of the category to an appearance. Further, it concerns the determination of inner sense in general. It is thus the representation by means of which the posterior act can perform the figurative synthesis. One should note, however, that as it is a *representation* of that procedure, the procedure itself can give unity to sensible representations in the prior act, i.e. prior to any determination. This procedure is sufficient for distinguishing objects, but for distinguishing the self from objects, one needs to establish a relation of the self to the object. For this, one needs a representation of that procedure which gives unity to the sensible representation (the image). However, the figurative synthesis made possible through this representation is not enough. One also needs an intellectual synthesis represented in the category. In the above passage Kant says that the category expresses a rule of unity with which the schema is in accord. A category is a pure synthesis *generally represented*, so perception (the posterior act) is possible only by representing generally the pure synthesis which is required for producing an image. A mere image can thus become perception through representing the *a priori* rule which makes the image possible and representing that sensible synthesis generally. In other words, perception is possible through a combination of two syntheses: figurative and intellectual.

⁵⁷⁸ A 142 / B 181.

9.3.4. KANT'S ARGUMENT

From the above analysis, we can see that if a Wolffian has accepted Kant's claim in the Transcendental Aesthetic, he or she should conclude that a unity of a sensible manifold necessarily stands under the formal condition of inner sense. In the Reality-Part of the Deduction Kant has explained how in the posterior act of cognition the original apperception effects the unity of the *thought* manifold. He has also shown that in the act of thinking an object, the given unity necessarily stands under the categories. Finally, he has explained that the mere intellectual synthesis is incapable of producing cognition by itself. Thus, the posterior act of cognition always requires a figurative synthesis affecting inner sense.

This is what Kant's proof for the objective reality of the categories consists in, but how does the Validity-Part work in light of these considerations? How is he able to show that all possible appearances stand under the categories? What we know is that the appearances are unities given in intuition, so all appearances to which we apply the posterior act, stand under the categories. However, Kant now needs to rule out the possibility of representing appearances not capable of being thought.

How can Kant prove the objective validity of the categories without considering the synthesis of imagination required for the prior act of cognition, as he did in the A edition? The answer is simple. In the Transcendental Aesthetic Kant has already proven the objective validity of the concepts of space and time. Thus, everything that comes before our senses comes in the forms of space and time. In the Reality-Part Kant's focus was on the supreme principle of all intuition in relation to the understanding, and he explained how the manifold of intuition can be combined in one consciousness. In § 21, after the beginning of the Deduction, he described the purpose of § 26 as follows:

In the sequel (§ 26) it will be shown from the way in which the empirical intuition is given in sensibility that its unity can be none other than the one the category prescribes to the manifold of a given intuition in general according to the preceding § 20; thus by explanation of its *a priori* validity in regard to all objects of our senses the aim of the deduction will first be fully attained.

What Kant must now show is that although the appearances do not depend on the functions of the understanding, their unity is the same unity as the one the category prescribes to the manifold of a given intuition *in general*. In § 24 Kant explained that the posterior act of cognition does not consist in an act of original apperception alone but necessarily involves an act of imagination. This figurative synthesis determines sensibility, and it is distinct from the intellectual synthesis that “would be thought in the mere category in regard to the manifold of an intuition in general”⁵⁷⁹ Consequently, contrary to how the Wolffians thought, apperception is not the same as inner sense. In the posterior act, the understanding exercises its action on the passive subject, whose faculty it is, and the understanding consists in the cooperation of two original faculties: apperception and imagination. The beginning of the Deduction (§ 15–§ 20) proves neither the objective reality nor the objective validity of the categories, because in it Kant analyses only the purely intellectual element of the understanding, which by itself is incapable of producing cognition.

Imagination is thus an essential faculty for producing cognition. As Kant says in § 24 (B 154), inner sense contains the mere form of intuition without combination of the manifold in it. We can be conscious of a unity in intuition, such as a line or a circle, only by determining inner sense. However, imagination belongs to sensibility, and we cannot represent simultaneity with-

⁵⁷⁹ B 151.

out successive synthesis affecting inner sense. This is, as we have seen, where Wolff's philosophy needs to be revised.

Kant still agrees with Wolff that empirically considered, the mind must first distinguish objects outside the self before it can distinguish the self from those objects. He also agrees that the latter distinguishing depends on an obscure distinguishing of time, but he insists that we must go further in the analysis of empirical apperception, and when we do this, we see that also the former distinguishing depends on an obscure distinguishing of time. Mere reproducibility requires a unity produced by a successive synthesis affecting inner sense, and recognisability requires a successive synthesis by means of which those unities can be used as representations of objects distinct from the self, which in turn is a precondition of distinguishing the self from those objects. Thus, as we saw in the previous subsection, the Subjective Deduction is fully compatible with the B Deduction

Now, in the Validity-Part Kant must attend to the supreme principle of the possibility of all intuition in relation to sensibility, according to which all the manifold of sensibility stands under the formal conditions of space and time. In order to see how the Validity-Part is connected to the Reality-Part, let us take a look at the difference between formal intuitions and the form of intuition. Space and time are represented as formal intuitions through figurative synthesis. In other words, our consciousness of space and time requires something over and above the mere unity of a pure manifold by means of which appearances are given to us: it requires a *conscious* synthesis of an *a priori* manifold. We therefore acquire the formal intuitions only through the first application of the understanding, i.e. through applying the posterior act of cognition to appearances. Only after this con-

scious representation of objects can we arrive at the concepts of space and time.⁵⁸⁰

Thus, the pure manifolds of space and time are innate but this first formal ground is not yet the form of intuition, and the form of intuition is not yet a formal intuition. One can only imagine Kant's frustration in having to explain this to Eberhard, who was either incapable of understanding or unwilling to understand something that should, after what has been said in the *Transcendental Aesthetic*, be quite obvious to a Wolffian.

When we understand this, we see that the acquisition of our pure sensible concepts is connected to the acquisition of the categories, and we may return to Longuenesse's interpretation of the epigenesis of pure reason that was discussed at the beginning of this chapter. I noted that my hypothesis is compatible with Longuenesse's view that the transcendental schemata are prior to concepts but that it is contrary to her view that the transcendental schemata nevertheless depend on apperception. In other words, if my hypothesis is correct, then Kant's revision of Wolff's philosophy is less radical than Longuenesse suggests, and the revision concerns first and foremost the origin and content of our cognition but not the view on cognition as consisting of two stages.

Understanding the B Deduction depends on understanding what figurative synthesis and formal intuitions are. Since Longuenesse's interpretation of the distinction between form of intuition and formal intuition seems to be similar to how I interpret the distinction, and since there are similarities also in our interpretations of the acquisition of pure concepts, we should see if the more radical interpretation she presents is to be preferred over the one I have here presented based on my hypothesis.

⁵⁸⁰ Having these pure sensible concepts is, in turn, a precondition for using space and time as images (e.g., using an undetermined image for the concept of a triangle). Kant stresses that we should not confuse images of space and time with images that are made possible through the intuitions of space and time. (See Ak. 8:222.)

Let us begin by considering what Allison calls the objectifying function of the categories. The relevant passage is from § 10 of the *Transcendental Analytic*:

The same function that gives unity to the different representations *in a judgement* also gives unity to the mere synthesis of different representations *in an intuition*, which, expressed generally, is called the pure concept of the understanding. The same understanding, therefore, and indeed by means of the very same actions through which it brings the logical form of a judgement into concepts by means of the analytical unity, also brings a transcendental content into its representations by means of the synthetic unity of the manifold in intuition in general [...]⁵⁸¹

In order to understand what Kant means here we need to understand what he means by analytical unity and synthetic unity. Allison is puzzled by Longuenesse's interpretation of the role of analysis in this quote, and here is how she responds to his criticism:

There is, admittedly, something puzzling about the fact that forms of *synthesis* are supposed to originate in forms of *analysis*. Allison expresses just such puzzlement when he says: 'I fail to see how forms of analysis (the logical forms of judgment) might be equated with forms of synthesis (the categories).' But actually, this tells only part of the story. The whole story is this: it is insofar as they are themselves forms of synthesis (forms of synthesis, or combination, of *concepts*) that forms of judgment are also forms of *analysis* (analysis of the sensible given with a view to forming concepts of objects to be combined – synthesized – in judgments).

[...]

'By means of analytic unity' means: by means of a unity reached by way of *analysis*. Judgment is a *synthesis* (of con-

⁵⁸¹ A 79 / B 104–5.

cepts) *by means of analysis* (of the sensible given). Categories are concepts *of the synthesis of intuition* necessary for the *analysis* of this same intuition that allows concepts of objects to be formed *and synthesized* in judgments. So if you like, the full process is: synthesis (of intuition) for analysis (into concepts) for synthesis (of these concepts in judgment).⁵⁸²

What particularly concerns us here is that what Longuenesse calls the “full process” is a self-conscious process. According to her view then, § 26 shows that the appearances stand under the categories by virtue of the fact that the categories guide sensible synthesis, although not as reflected concepts but as logical forms engrained in the mind.⁵⁸³ Longuenesse⁵⁸⁴ clarifies her view by considering the judgement (of experience): ‘The sun warms the stone.’ According to her view, we arrive at this judgement by first perceiving the repeated conjunction of light of the sun and warmth of the stone. Then we form the hypothetical judgement (of perception): ‘If the sun shines on the stone, then the stone becomes warm.’ Finally, we subsume the hypothetical connection under the concept of cause. The category of cause thus guides the sensible synthesis of our perceptions, which makes possible the analysis of the repeated experience into a hypothetical judgement, which in turn makes subsumption possible.

Longuenesse’s interpretation is similar to the interpretation I have proposed in that also I think that the rules represented in the schemata of the categories govern the synthesis that makes possible the comparison of sensible manifolds. Empirical rules are generated in this way, so those rules precede both empirical concepts and the categories. As I explained in the introduction, this view links Kant to the tradition starting with Alhazen’s theory, according to which even our sensations require distinguishing

⁵⁸² Longuenesse, “Kant’s Categories”, 94–5.

⁵⁸³ Longuenesse, *Capacity to Judge*, 243–4.

⁵⁸⁴ Longuenesse, “Kant’s Categories”, 96–8.

and comparing. However, on one crucial point I disagree with Longuenesse. Whereas according to my hypothesis, the distinguishing and comparing action required for mere reproduction does not involve awareness of the rule, Longuenesse thinks that there is not much sense in distinguishing between rule and awareness of a rule.⁵⁸⁵ Therefore, Longuenesse thinks that although appearances do not depend on categories as full-fledged concepts they do depend on self-conscious *a priori* rules. To put it differently, Longuenesse sees Kant as breaking away from the Wolffian view of cognition as consisting of two acts.

The fact that Kant explicitly says that the appearances do not depend on the functions of the understanding does not support her interpretation. Since Kant also agrees with Wolff that animals are conscious but not self-conscious creatures, the interpretation Longuenesse offers would have to have superior textual support from the Deduction itself in order to gain the upper hand over my interpretation. As I already noted at the beginning of this chapter, her interpretation is based on the distinction between judgements of perception and judgements of experience. As we saw, this ground is questionable and it is at odds with Kant's statement that at the beginning of the Deduction he has abstracted from the way appearances are given to us. Thus, what Kant says in the first part of the Deduction does not support Longuenesse's interpretation. Now we should see how well her interpretation fits what Kant says in the second part.

I agree with Longuenesse that the second part of the argument is to be found in § 26. Broadly speaking, I also agree with what she says concerning the distinction between form of intuition and formal intuition. However, her interpretation of Kant's account of inner sense does not allow her to take seriously Kant's claim in the footnote on page B 160, according to which formal

⁵⁸⁵ Longuenesse, "Kant's Categories", 99.

intuition precedes all concepts. Here is how Longuenesse interprets Kant:

[T]he unity of apperception, as a capacity to judge, generates the representation of the unity and unicity of space and time, as the condition for any specific act of judging at all, thus *prior to any specific synthesis* according to the categories, let alone any subsumption under the categories.⁵⁸⁶

However, when the *unity* of apperception generates a representation of unity, the resulting representation is no longer an intuition. As Kant explains in the A Deduction (A 108–9), the unity of apperception is needed for representing the transcendental object. The pure concept of a transcendental object, Kant says,

concerns nothing but that unity which must be encountered in any manifold of cognition insofar as it stands in relation to an object. This relation, however, is nothing other than the necessary unity of consciousness, thus also of the synthesis of the manifold through a common function of the mind for combining it in one representation.⁵⁸⁷

It is this act of synthesis that is at issue in §§ 19–20. Through this common function an object is represented both in the act of forming a judgement and in the act of thinking an object for an intuition. On page A 107 Kant says that even the unity of the *concepts* of space and time is possible only because of the relation to the transcendental unity of consciousness. Now, if the unity of apperception generates both the formal intuitions and the concepts of space and time, then there is no difference between them, and yet Kant says that formal intuitions precede all concepts. So, while it is certainly true that the act of thinking an ob-

⁵⁸⁶ Longuenesse, “Kant’s Categories”, 105–6.

⁵⁸⁷ A 109.

ject for our intuitions is not a case of subsumption under a category, it is nevertheless a case of using a category, because according to § 10 the third thing that gives unity to the synthesis of a pure manifold is concepts, and without such a synthesis a pure manifold cannot be represented as one representation.

What, then, is the difference between the unity of formal intuitions on the one hand and the unity of the concepts of space and time on the other? I think the answer is simple. The difference is that since formal intuitions are *intuitions*, not concepts, they do not get their unity from concepts (from the categories). In other words, their synthesis is not a synthesis generally represented even though it is a conscious synthesis. Therefore, although in the figurative synthesis apperception must represent space and time through the schema of a category, it is not the *unity* of apperception that generates the unity of space and time.

If we reject my hypothesis, it becomes impossible to interpret Kant in this way, and because Longuenesse has chosen a different way of interpreting what inner sense is in Kant's theory, she is unable to make sense of Kant's examples of the synthesis of apprehension in § 26 (the apprehension of a house and the apprehension of the freezing of water). Longuenesse is troubled by these examples:

[W]ith these two examples we are faced with two different temporalities. One is the temporal character of our act of representation, the other the temporal character of the empirical object. It is not at all clear how the *synthesis speciosa* of section 24 may account for this duality.⁵⁸⁸

As Longuenesse notes, in the two examples space and time are treated as two distinct intuitions, one synthesized in space, the other synthesized in time. However, she thinks that in §

⁵⁸⁸ Longuenesse, *Capacity to Judge*, 229.

24 “Kant describes the pure intuition of space and the pure intuition of time as jointly produced, for example, in the act of drawing a line.”⁵⁸⁹ She admits that this discrepancy cannot be explained by what Kant says in the Analytic of Concepts but she thinks that it can be explained by taking into account what he does say in the Analytic of Principles. So, if Longuenesse is right, the Metaphysical Deduction depends on what Kant says later in the Transcendental Deduction, and the Transcendental Deduction depends on what Kant says later in the Analytic of Principles. In other words, the Metaphysical Deduction cannot be understood until one reads the Transcendental Deduction, which, in turn, cannot be understood until one reads the Analytic of Principles.

Fortunately, this is not so, if my hypothesis is correct. In § 24 Kant is not trying to show that space and time are jointly produced. The examples in § 24 are examples of *conceptual* representations of space and time that depend on formal intuitions. The example of drawing a line in thought illustrates how the conceptual representation of a line requires a temporal act the effect of which is a modification of inner sense. However, drawing a line in thought does not produce a representation of time, although it requires an obscure distinguishing of time. It is only after one has a representation of space that one can arrive at a conceptual representation of time:

Motion, as action of the subject (not as determination of an object), consequently the synthesis of the manifold in space, if we abstract from this manifold in space and attend only to the action in accordance with which we determine the form of *inner sense*, first produces the concept of succession at all. The understanding therefore does not *find* that sort of a combination of the manifold in inner sense, but *produces* it, by *affecting* inner sense.⁵⁹⁰

⁵⁸⁹ Longuenesse, *Capacity to Judge*, 240.

⁵⁹⁰ B 154–5, translation modified.

In other words, time is the form of inner sense, and a formal intuition of space requires an act affecting inner sense. Thus, the formal intuition of space requires time as a formal ground of intuition. A formal intuition of time, on the other hand, requires a formal intuition of space and another act represented in inner sense. In the act of drawing a line in thought, therefore, space and time are not jointly produced, and there is no discrepancy between the examples in § 24 on the one hand and § 26 on the other. According to my reading, then, Longuenesse's claim that the temporal character of the freezing of water "seems not to depend on our act of apprehension, but on the (empirical) object itself",⁵⁹¹ is simply a misunderstanding. The temporal character of the freezing of water does depend on the act of apprehension because it depends on the apprehension of a change taking place in the formal intuition of space, which in turn depends on an act of apprehension.

It is now time to consider the conclusion of the B Deduction, which Kant is ready to present after explaining the difference between the form of intuition and formal intuition:

Thus even *unity of the synthesis* of the manifold, outside or within us, hence also a *combination* with which everything that is to be represented as determined in space or time must agree, is already given *a priori*, along with (not in) these intuitions, as condition of the synthesis of all *apprehension*.⁵⁹²

The unity of the synthesis of the manifold is given along with the intuitions but not in them, because sense itself does not give a representation of unity without the figurative synthesis of imagination. Kant continues:

⁵⁹¹ Longuenesse, *Capacity to Judge*, 241.

⁵⁹² B 161.

But this synthetic unity can be none other than that of the combination of the manifold of a given *intuition in general* in an original consciousness, in agreement with the categories, only applied to our *sensible intuition*.⁵⁹³

In the Subjective Deduction Kant explained that the undetermined object of an empirical intuition, the appearance, must not in itself be regarded as an object outside the power of representation.⁵⁹⁴ The posterior act must therefore produce the relation to an object. In the above sentence, Kant refers to two unities: the unity of a formal intuition and the unity of the combination of the manifold of a given intuition in general in an original consciousness. According to § 10, the synthetic unity of the manifold in intuition in general brings transcendental content to our representations. This unity is the product of the intellectual synthesis, by means of which cognition relates to an object, and it would not be possible without the unity of apperception. The unity of a formal intuition, by contrast, is not a unity of a given intuition in general in an original consciousness. Admittedly, it is a conscious unity and it would not be possible without apperception, but its unity nonetheless is a unity of intuition and belongs to space and time. It is a product of the figurative synthesis, which is “an effect of the understanding on sensibility and its first application (and at the same time the ground of all others) to objects of the intuition that is possible for us.”⁵⁹⁵ Thus, the unity of a formal intuition is the unity of an intellectual synthesis but applied to our sensible intuition, and the figurative synthesis stands under the categories. Not only figurative synthesis, however, but all synthesis:

Consequently all synthesis, through which even perception itself becomes possible, stands under the categories, and since

⁵⁹³ B 161.

⁵⁹⁴ A 104.

⁵⁹⁵ B 152.

experience is cognition through connected perceptions, the categories are conditions of the possibility of experience, and are thus also valid *a priori* of all objects of experience.⁵⁹⁶

In this passage Kant makes two claims. The latter of these is very straightforward and presents no problem. At the beginning of § 26 Kant said that he will explain the possibility of “cognizing *a priori through categories whatever objects may come before our senses*, not as far as the form of their intuition but rather as far as the laws of their combination are concerned”.⁵⁹⁷ Now, the laws of their combination are prescribed by the understanding. We can cognize the order and regularity of nature *a priori*, because we ourselves have originally put it there. In other words, experience is a synthesis of perceptions,⁵⁹⁸ and we cognize the objects of experience *a priori* through categories, because the categories make possible the combination of perceptions. However, in order to explain the possibility of cognizing *a priori* through categories *whatever objects may come before our senses*, Kant needs to show that not only the synthesis of perceptions but also the synthesis through which perception itself becomes possible, stands under the categories. Consequently, in order to understand the argument, we need to understand how it is that perception becomes possible.

In the previous subsection we saw that an empirical image is a representation of a simultaneous empirical manifold in space. As a pure manifold, space is prior to an image, and simultaneity cannot be represented without a successive synthesis. Therefore, outer sense only affords us impressions without putting them together, and at the most elementary level the unity of the image is a spatial unity produced by an *a priori* act affecting inner sense. Further, simultaneity cannot be represented as con-

⁵⁹⁶ B 161.

⁵⁹⁷ B 159.

⁵⁹⁸ B 217.

tained in one moment, and time is contained in every empirical representation of the manifold.⁵⁹⁹

In the Schematism Kant says that an empirical concept is always related immediately to the schema of the imagination, not to an image of an object. Images become possible only through pure *a priori* imagination, as we can see from Kant's example of the empirical concept of a dog. What the schema of this concept represents is the rule in accordance with which the *empirical* faculty of productive imagination can exhibit an image of a four-footed animal. However, the schema itself is a product of *pure* imagination: the shape of a dog is a pure representation. Consequently, an empirical concept signifies a rule for producing an empirically reproducible representation, i.e. an appearance, and the schema is a representation of this rule. Now, an appearance cannot be a momentary thing, so although the form of outer sense, space, is the pure form of outer intuitions, time is the *a priori* formal condition of all appearances in general.⁶⁰⁰ The dog's movement changes its shape – it changes the image of the dog – but regardless of this change, the rule allows the mind to keep reproducing the same representations that were previously associated with the dog. Reproducibility thus requires an *a priori* synthesis affecting inner sense.

The prior act of cognition, therefore, represents an undetermined object of an empirical intuition by means of this rule, and the posterior act of cognition determines that object through consciousness of the same rule. The posterior act includes a figurative synthesis, which has as its aim the unity in the determination of sensibility. This unity is a condition of the combination of perceptions, and the synthesis *generally represented* is called a category. On the other hand, this same synthesis is a condition of everything that can come before our senses, because it gives em-

⁵⁹⁹ A 139 / B 178.

⁶⁰⁰ A 34 / B 50.

pirical representations their unity without which they would not be reproducible. Consequently, all synthesis, through which perception itself becomes possible – even the synthesis of the prior act of cognition in producing an image – stands under the categories. In the Subjective Deduction Kant explained that this same *a priori* synthesis is responsible for both reproduction and recognition. In the Objective Deduction of the A edition he explained that the same faculty of pure imagination, which is required for perception, is also required for representing appearances. Now he has explained that the unity required for the latter is also required for the former, and that it is the unity of a pure concept of the understanding but applied to our sensible intuition. Neither transcendental apperception nor the simplicity of the soul can provide the ground of unity in producing an image, but there is no need for them either, for synthesis in space and time effects unity of representation by virtue of sense itself.

9.4. Conclusion

In this study, I have examined whether we can understand the Transcendental Deductions by making the hypothesis that Kant got his conception of inner sense from Tetens. I started by arguing that would be a reasonable hypothesis and that it would place Kant within a well-established tradition of thinking about perception. It has been my aim to show that both the Subjective Deduction and the Objective Deduction of the A edition could be made intelligible by making this hypothesis. I have also argued that even though commentators have had trouble accepting Kant's claim that the B Deduction is compatible with the A Deduction, that hypothesis makes the B Deduction equally intelligible.

In the present chapter, I have concentrated on the B Deduction and shown that even though the argument does not rest on

an analysis of our basic cognitive faculties – an analysis that I have shown to have connections to Tetens' philosophy – my hypothesis can make Kant intelligible where other commentators have seen him as falling into error and obscurity. In fact, it has been my intention to show that we do not even need to speculate about the origin of Kant's account of inner sense. All we need to do is to take seriously what Kant says. First, we should take it seriously that our receptive capacity is twofold: we have inner and outer sense. Secondly, we should take seriously the claim that space is the form of outer sense and time is the form of inner sense. And thirdly, we should take seriously the claim that our sensible cognition does not involve ideas. If we take these claims as a revision of Wolff's philosophy and consider them in conjunction with other things Kant says – most importantly that appearances do not depend on the understanding and that perception is consciousness of appearances – we arrive at the very same interpretation to which my hypothesis led us. Therefore, although I think it is clear that Tetens influenced Kant, my *interpretation* of the Deductions does not depend on the hypothesis that there was such an influence, so if the reader wonders why Kant has said nothing about Tetens' analysis, the answer is simple: there is no need for it. Kant does not have to mention Tetens in the Transcendental Aesthetic any more than men like Newton or Berkeley. Both Tetens and Kant present a critique of Wolff's philosophy and those critiques are built on the same conception of inner sense. Tetens' inquiry is empirical, Kant's is transcendental, and he has said everything that he needs to say for making his case. For Kant's argumentation Wolff is more important than Tetens. Nevertheless, it has proven to be difficult for commentators to understand the connection between Wolff and Kant correctly, and I hope that this connection can be seen more clearly through what I have said about Tetens' philosophy. As far as Kant's contemporaries are concerned, I suppose that familiarity with Tetens' philosophy should have aided in understanding Kant's theory of the

acquisition of empirical concepts, but it can also be understood through Alhazen's theory, which was well known at Kant's time.

We can thus set aside the hypothesis and evaluate the credibility of the interpretation itself. In this chapter, one of my aims has been to show why the Deductions have been so difficult to understand. By considering three well-known interpretations I have argued that the reason why these interpretations have failed is that they are based on a wrong interpretation of inner sense (Pendlebury's analysis of the Schematism can be seen as falling into the same category). There is still one more thing to do, however. The readings I have here discussed are all conceptualist readings, and we should see if a non-conceptualist reading differing from the one I have presented could be successful. Hannah Ginsborg has argued that although "conceptualism seems to get the relation between conceptual activity on the one hand, and perception on the other, the wrong way round",⁶⁰¹ non-conceptualist interpretations of Kant are unable to show how "human imagination can produce perceptual images of objects in which those objects are intentionally represented without being brought under concepts."⁶⁰² In her view then, if the strategy of the Transcendental Deduction is to have any hope of success, the spontaneity of imagination must for Kant be a spontaneity of understanding.⁶⁰³ Ginsborg sees Kant's strategy in responding to the Humean worry about the causal connection as follows:

Kant's strategy [...] is to claim that even though we have no sensory impression corresponding to the concept of causality, causality as necessary connection nonetheless figures in the context of perception. It does so because perceptual content is arrived at through a synthesis of sensible impressions which accords with the rules of the understanding, and one of these

⁶⁰¹ Ginsborg, "Was Kant a nonconceptualist?", 67.

⁶⁰² Ginsborg, "Was Kant a nonconceptualist?", 68.

⁶⁰³ Ginsborg, "Was Kant a nonconceptualist?", 69.

rules is, or corresponds to, the concept of causality. Now it is hard to see, on the nonconceptualist reading, how anything like this strategy is available to Kant.⁶⁰⁴

I agree with Ginsborg about Kant's strategy, and I agree that this strategy would not be available to Kant if it were his view that we have pre-conceptual representations with intentional content. Thus, a necessary requirement for a successful non-conceptual reading is that it does not claim that our perceptual awareness involves representations with intentional content. On the other hand, we saw that of the conceptualist readings discussed here the most promising one was bordering on non-conceptualism (and could be made more intelligible by accepting my hypothesis). Ginsborg suggests a conceptualist reading that would accommodate the considerations she mentions as supporting the non-conceptualist view. For her, conceptualism is, so I gather, a view she accepts only grudgingly, because she sees no alternative.

In light of these considerations I have to conclude with McLear⁶⁰⁵ that the extremely widespread view that for Kant perceptual awareness is made possible by representations having intentional content is false. I have here presented an alternative to that view, and my reading places Kant's theory between conceptualism and non-conceptualism. It is a non-conceptual reading to the extent that it claims that for Kant the appearances are products of sensibility (sense and imagination), but it may be viewed as conceptual in the sense that it claims that human perception (consciousness of appearances) requires the use of categories. This reading allows us to view the structure of the *Critique* as logical and the two editions as compatible with each other. It also fits the historical context quite nicely.

⁶⁰⁴ Ginsborg, "Was Kant a nonconceptualist?", 70.

⁶⁰⁵ McLear, "Kant on Perceptual Content".

10. CLOSING WORDS

In his famous letter to Marcus Herz, Kant addressed the problem of the ground of the relation between a representation and its object.⁶⁰⁶ The problem was that he could not understand how a concept of the understanding could represent an object. Unlike God, we cannot be the cause of the objects through our understanding, and neither can the objects be the causes of our intellectual concepts. In order to find a solution to this problem Kant had to internalize this relation.

In this study, my aim has been to explain how I think we should interpret the internalization of the relation between representation and its object so as to make sense of Kant's proofs for the objective validity of the pure concepts of the understanding. In my view, a correct understanding of the distinction between outer and inner sense is the key to understanding Kant's solution to the problem. For us it is natural to think that outer sense represents objects in space, but this is not how Kant thinks. For Kant, outer sense is a capacity of the mind through which it can be affected by the noumenal reality. That capacity does not by itself yield consciousness of objects. If we think of the modifications of outer sense as representations having a relation to an object, then that object belongs to the noumenal world. Although these representations are in space, they do not represent anything in space.

Our impressions are thus the only kind of representations that are caused by an object in such a way that the ground of the relation between representation and object is understandable through the capacity of affection alone. They "contain only the way in which the subject is affected by the object",⁶⁰⁷ but since

⁶⁰⁶ Ak. 10:130–1.

⁶⁰⁷ See the letter to Herz, Ak. 10:130. See also the two opening paragraphs of the Introduction to the B edition (B 1–2).

they are not cognitions, their relation to the object (to an object in itself) is of no interest to us in considering the question of the validity of our pure concepts.

Cognition requires not only outer affection but mental action as well. Outer affection is the occasion for the awakening of the cognitive faculty. However, the representation to which this action is directed at the awakening of our cognitive faculty contains more than merely the way in which the subject is affected by noumena. It contains not only impressions but also an *a priori* form: a pure manifold of space. Thus, the representation to which cognitive action is directed is neither an impression nor a heap of impressions but an intuition which contains those impressions. This intuition, however, still does not contain an object of outer sense. An object of cognition is never a modification of outer sense, because inner action produces a modification in inner sense through inner affection.⁶⁰⁸

The change in the conception of inner sense is inseparably connected with a change in the view on the nature of our perceptual awareness. The possibility of proving the objective validity of the pure concepts of the understanding rests on finding a connection between the objects of the senses and those pure concepts. Such a connection is possible only if the mind is active in perceptual awareness, because an object of a passively caused representation would be beyond the reach of our intellectual concepts. Now, one viable option for constructing a deduction of the categories would be to assume that those concepts are required for the act of representing the objects of our perceptual awareness. However, one cannot escape the feeling that that would be an absurd position. If we reject this option, as Kant does, we face a difficulty. How can a pure concept of the understanding have a relation to an object, which is produced by the mind independent-

⁶⁰⁸ We can draw a distinction between objects of outer sense and the object of inner sense, but this distinction concerns only our thought, and the object of thought is always represented in inner sense.

ly of the understanding? A successful answer to this question requires that we do not consider the product of the inner act required for perceptual awareness as an idea. There is, of course, a relation between a sensible representation and its object, but the new conception of inner sense allows us to rethink this relation. The representation can now be thought as being a modification of outer sense and containing empirical impressions ordered in an *a priori* form. When we consider the act in this way, we do not think of it as producing a representation having a relation to an object but rather as producing the object itself. According to this conception, the representation is a modification of outer sense, and the *a priori* act produces an object, which is a modification of inner sense. An act of the understanding can now be thought to be directed at an object of the act of sensibility instead of a representation of an object, and in this act of the understanding that object serves as a representation representing an object outside the power of representation. The latter object is what Kant calls an object of experience, and unlike the act of representing an object of perceptual awareness that act does require the use of categories.

The new conception of inner sense thus enables a reversal of the relation between a representation and its object. An impression is in a relation to a noumenal object, but an act of sensibility builds its own object by using the intuition of outer sense as its representation. That undetermined object of perceptual awareness can then be determined through an act of the understanding, and this act requires a representation of a transcendental object, which is always one and the same.

My aim in this study has been to explain how Kant thinks that the new conception of the distinction between outer and inner sense enables him to prove the validity of the categories. Kant puts emphasis on his new conception of the role of imagination in producing appearances, and that conception is connected with the reversal of the relation between representation and its object. They are two sides of the same coin. My purpose has been to

show that once we understand Kant's view on the origin and content of our representations correctly, we can understand his Deductions. Kant thought that the use of imagination is ultimately grounded on *a priori* rules, and those rules are the common origin of the objects of perceptual awareness on the one hand, and the objects of experience on the other. This common origin makes a deduction of the categories possible.

Kant thus thinks that he has been able to prove the objective validity of the categories in regard to the objects of the senses, but only at the cost of revealing the limits of human cognition. The intellectual act of representing an object requires a given representation in order to yield cognition. In other words, when we do not have a sensible object which we can use as a representation, the categories cannot help us to produce an object of cognition. Thus, although we can use the categories for thinking objects of the noumenal world, we are then playing with mere ideas, and a transcendental deduction of an idea, i.e. a concept of reason, is possible only as a deduction of a regulative principle, not a constitutive one.⁶⁰⁹ However, although we cannot have cognition of noumena, we are immediately conscious of the moral law which is the form of the noumenal world.⁶¹⁰ This law serves as the principle of the deduction of the faculty of freedom,⁶¹¹ whose logical possibility is shown in the Transcendental Dialectic. The practical concept of freedom is grounded on a transcendental idea,⁶¹² and the moral law provides objective reality to this concept. Kant thinks that in order to act morally we have to bring the form of the intellectual world into the world of sense. Pure reason thus has, after all, a capacity to be through its representation the cause of an object, if only in its practical use. The concept of reason does not yield cognition of the object to which the causality

⁶⁰⁹ A 671 / B 699.

⁶¹⁰ See the second *Critique*, Ak. 5:29–30; 43.

⁶¹¹ Ak. 5:4.

⁶¹² A 533 / B 561.

through freedom is attributed, but the moral law gives it significance for practical use.⁶¹³ Perhaps Kant could concede that it can be called a transcendent concept, because it can be applied to objects whether they are given sensibly or not sensibly. The only reservation is that it does not have theoretical significance in the latter case.⁶¹⁴

Any other conception of the distinction between outer and inner sense in Kant's philosophy would lack the simplicity characteristic of the conception here described. On the basis of that distinction the question of the origin and content of our representations can be understood in clear terms, and when we do understand that question, understanding Kant's Deductions becomes a relatively simple matter of understanding the connection between subordination and coordination of representations.

⁶¹³ Ak. 5:48–50.

⁶¹⁴ Ak. 5:50.

BIBLIOGRAPHY

Primary sources

Alhazen. See al-Haytham, Ibn.

Arnauld, Antoine and Nicole, Pierre (1996). *Logic or the Art of Thinking*. Jill Vance Buroker (ed.). Cambridge: Cambridge University Press.

Baumgarten, Alexander Gottlieb (1739). *Metaphysica*. Halle.

Berkeley, George (1948). *An Essay towards a New Theory of Vision*. – A.A. Luce & T.E. Jessop (eds.), *The Works of George Berkeley, Bishop of Cloyne*, Vol 1. London: Thomas Nelson & Sons. Originally published in 1709.

Brentano, Franz Clemens (1874). *Psychologie vom empirischen Standpunkt*. Leipzig: Duncker & Humboldt.

Cantor, Georg (1915). *Contributions to the Founding of the Theory of Transfinite Numbers*. Philip E. B. Jourdain (trans.). New York: Dover Publications.

Descartes, René (1983). *Oeuvres De Descartes*, 11 vol. Charles Adam and Paul Tannery (eds.). Paris: Librairie Philosophique J. Vrin. [AT]

Descartes, René (1985). *Principles of Philosophy*. – John Cottingham, Robert Stoothoff & Dugald Murdoch (trans.). *The Philosophical Writings of Descartes. Volume I*. Cambridge: Cambridge University Press, 193–291. [CSM]

Descartes, René (1985). *Optics*. – John Cottingham, Robert Stoothoff & Dugald Murdoch (trans.). *The Philosophical Writings of Descartes. Volume I*. Cambridge: Cambridge University Press, 152–175. [CSM]

Descartes, René (1986). *Objections and Replies*. – John Cottingham, Robert Stoothoff & Dugald Murdoch (trans.). *The*

- Philosophical Writings of Descartes. Volume II.* Cambridge: Cambridge University Press, 63–397. [CSM]
- al-Haytham, Ibn. (1989). *The Optics*. A. I. Sabra (trans.). London: The Warburg Institute.
- Kant, Immanuel (1900–). *Gesammelte Schriften*. Königliche Preussische Akademie der Wissenschaften (vols. 1–22), Deutsche Akademie der Wissenschaften zu Berlin (vol. 23), Akademie der Wissenschaften zu Göttingen (vols. 25–29) (eds.). Berlin: Reimer/DeGruyter. [Ak.]
- Kant, Immanuel (1990). *On a Discovery Whereby Any New Critique of Pure Reason Is Made Superfluous by an Older One*. Henry Allison (trans.). – Henry Allison & Peter Heath (eds.), *Theoretical Philosophy after 1781*. Cambridge: Cambridge University Press.
- Kant, Immanuel (1992). *A New Elucidation of the First Principles of Metaphysical Knowledge*. – David Walford & Ralf Meerbote (trans. & eds.), *Theoretical Philosophy 1755–1770*. Cambridge: Cambridge University Press.
- Kant, Immanuel (1996). *Critique of Practical Reason*. – Mary J. Gregor (trans. & ed.), *Practical Philosophy*. Cambridge: Cambridge University Press.
- Kant, Immanuel (1998). *Critique of Pure Reason*. Paul Guyer & Allen Wood (trans. & eds.). Cambridge: Cambridge University Press.
- Kant, Immanuel (1999). *Correspondence*. Arnulf Zweig (trans. & ed.). Cambridge: Cambridge University Press.
- Kant, Immanuel (2003). *On the Form and Principles of the Sensible and the Intelligible World [Inaugural Dissertation]*. – David Walford & Ralf Meerbote (trans. & eds.), *Theoretical Philosophy 1755–1770*. Cambridge: Cambridge University Press.
- Kant, Immanuel (2004). *Lectures on Logic*. J. Michael Young (trans. & ed.). Cambridge: Cambridge University Press.

- Kant, Immanuel (2009). *Anthropology from a Pragmatic Point of View*. Robert B. Louden (trans.). – Günter Zöller & Robert B. Louden (eds.), *Anthropology, History, and Education*. Cambridge: Cambridge University Press.
- Knutzen, Martin (1744). *Philosophische Abhandlung von der immateriellen Natur der Seele*. Königsberg: Hartung.
- Leibniz, Gottfried Wilhelm (1989). “Meditations on Knowledge, Truth, and Ideas”. – Roger Ariew & Daniel Garber (ed. & trans.), *Philosophical Essays*. Indianapolis: Hackett, 23–28.
- Leibniz, Gottfried Wilhelm (1989). *Principles of Nature and Grace, Based on Reason*. – Roger Ariew & Daniel Garber (ed. & trans.), *Philosophical Essays*. Indianapolis: Hackett, 206–213.
- Leibniz, Gottfried Wilhelm (1989). *The Principles of Philosophy, or, Monadology*. – Roger Ariew & Daniel Garber (ed. & trans.), *Philosophical Essays*. Indianapolis: Hackett, 213–225.
- Merian, Johann Bernhard (1778). “Ueber die Apperzeption seiner eignen Existenz”. *Magazin für die Philosophie und ihre Geschichte. Aus den Jahrbüchern der Akademien angelegt*, vol. 1, 89–132.
- Merian, Johann Bernhard (1778). “Ueber die Apperzeption in Rücksicht auf die Ideen, oder auf die Existenz der Ideen in der Seele”. *Magazin für die Philosophie und ihre Geschichte. Aus den Jahrbüchern der Akademien angelegt*, vol. 1, 133–194.
- Reid, Thomas (1997). *An Inquiry into the Human Mind, On the Principles of Common Sense*. Edinburgh: Edinburgh University Press. Originally published in 1764.
- Tetens, Johann Nicolaus (1979). *Philosophische Versuche über die menschliche Natur und ihre Entwicklung*, Hildesheim and New York: Georg Olms Verlag. Originally published in 1777. [*Versuche*]

- Tetens, Johann Nicolaus (2005). *Ueber die allgemeine speculativische Philosophie*. – Jürgen Engfer (herausgegeben), *Die Philosophischen Werke, Band IV*. Hildesheim and New York: Georg Olms Verlag. Originally published in 1775. [*Speculativische Philosophie*]
- Wolff, Christian (1728). *Philosophia rationalis sive logica, methodo scientifica pertractata*. Frankfurt and Leipzig. [*Logica*]
- Wolff, Christian (1732). *Psychologia empirica methodo scientifica pertractata*. Frankfurt and Leipzig.
- Wolff, Christian (1734). *Psychologia rationalis methodo scientifica pertractata*. Frankfurt.
- Wolff, Christian (1743). *Vernünfftige Gedancken von der Menschen Thun und Lassen, zu Beförderung ihrer Glückseligkeit*. Halle. Originally published in 1720. [*Deutsche Ethik*]
- Wolff, Christian (1747). *Vernünfftige Gedancken von Gott, der Welt und der Seele des Menschen, Auch Allen Dingen überhaupt*. Halle. Originally published in 1719. [*Deutsche Metaphysik*]

Secondary sources

- Allais, Lucy (2009). “Kant, Non-Conceptual Content and the Representation of Space”. *Journal of the History of Philosophy* 47 (3), 383–413.
- Allison, Henry (1983). *Kant’s Transcendental Idealism: An Interpretation and Defence*. New Haven and London: Yale University Press.
- Allison, Henry (2000). “Where Have all the Categories Gone? Reflections on Longuenesse’s Reading of Kant’s Transcendental Deduction”. *Inquiry* 43 (1), 67–80.

- Beiser, Frederic (1992). "Kant's intellectual development: 1746–1781". – Guyer, Paul, (ed.), *The Cambridge Companion to Kant*. Cambridge: Cambridge University Press.
- Bennett, Jonathan (1966). *Kant's Analytic*. Cambridge: Cambridge University Press.
- Blackwell, Richard J. (1961). "Christian Wolff's Doctrine of the Soul". *Journal of the History of Ideas* 22 (3), 339–354.
- Dyck, Corey van (2008). "The subjective deduction and the search for a fundamental force". *Kant-Studien* 99 (2), 152–179.
- Dyck, Corey van (2011). "A Wolff in Kant's Clothing: Christian Wolff's Influence on Kant's Accounts of Consciousness, Self-Consciousness and Psychology". *Philosophy Compass* 6 (1), 44–53.
- Ginsborg, Hannah (2008). "Was Kant a nonconceptualist?". *Philosophical Studies* 137, 65–77.
- Hanna, Robert (2005). "Kant and Nonconceptual Content". *European Journal of Philosophy* 13 (2), 247–290.
- Hanna, Robert (2008). "Kantian Non-conceptualism". *Philosophical Studies* 137 (1), 41–64.
- Hatfield, Gary C. and Epstein, William, 1979. "The Sensory Core and the Medieval Foundations of Early Modern Perceptual Theory". *Isis* 70 (3): 363–384.
- Henrich, Dieter (1969). "The Proof-Structure of Kant's Transcendental Deduction". *The Review of Metaphysics*. 22 (4), 640–659.
- Koistinen, Olli (2011). "Descartes in Kant's Transcendental Deduction". *Midwest Studies in Philosophy*. XXXV, 149–163.
- Krausser, Peter (1976). "Kant's Schematism of the Categories", *Synthese* 33 (1): 176–192.
- Kühn, Manfred (1987). *Scottish Common Sense in Germany 1768–1800: A Contribution to the History of Critical Phi-*

- osophy*. Kingston and Montreal: McGill-Queen's University Press.
- Kühn, Manfred (1989). "Hume and Tetens". *Hume Studies* XV (2): 365–376.
- Kühn, Manfred (1997). "The Wolffian Background of Kant's Transcendental Deduction". – Patricia A. Easton (ed.), *Logic and the Workings of the Mind: the Logic of Ideas and Faculty Psychology in Early Modern Philosophy*. Atascadero, California: Ridgeview Publishing Company.
- Longuenesse, Béatrice (1998). *Kant and the Capacity to Judge: Sensibility and Discursivity in the Transcendental Analytic in the Critique of Pure Reason*. Trans. Charles T. Wolfe. Princeton: Princeton University Press.
- Longuenesse, Béatrice (2000). "Kant's Categories and the Capacity to Judge: Responses to Henry Allison and Sally Sedgwick". *Inquiry* 43, 91–110.
- McLear, Colin (2016). "Kant on Perceptual Content". *Mind* 125 (497), 95–144.
- Pendlebury, Michael (1995). "Making sense of Kant's schematism". *Philosophy and Phenomenological Research* 55 (4): 777–797.
- Robinson, Hoke (1981). "Anschauung und Mannigfaltiges in der Transzendentalen Deduktion". *Kant-Studien* 72 (1–4), 140–148.
- Robinson, Hoke (1988). "The Priority of Inner Sense". *Kant-Studien* 79 (1–4), 165–182.
- Sabra, A. I. (1978). "Sensation and Inference in Alhazen's Theory of Visual Perception". – Peter Machamer and Robert Turnbull (eds.), *Studies in Perception*. Columbus: Ohio State University Press, 160–185.
- Thiel, Udo (1996). "Between Wolff and Kant: Merian's Theory of Apperception". *Journal of the History of Philosophy* 34 (2), 213–232.

Kant's Transcendental Deductions

Weldon, T. D. (1958). *Kant's Critique of Pure Reason*. Oxford: Oxford University Press.

Wolff, Robert Paul (1963). *Kant's Theory of Mental Activity: A Commentary on the Transcendental Analytic of the Critique of Pure Reason*. Cambridge, Mass.: Harvard University Press.